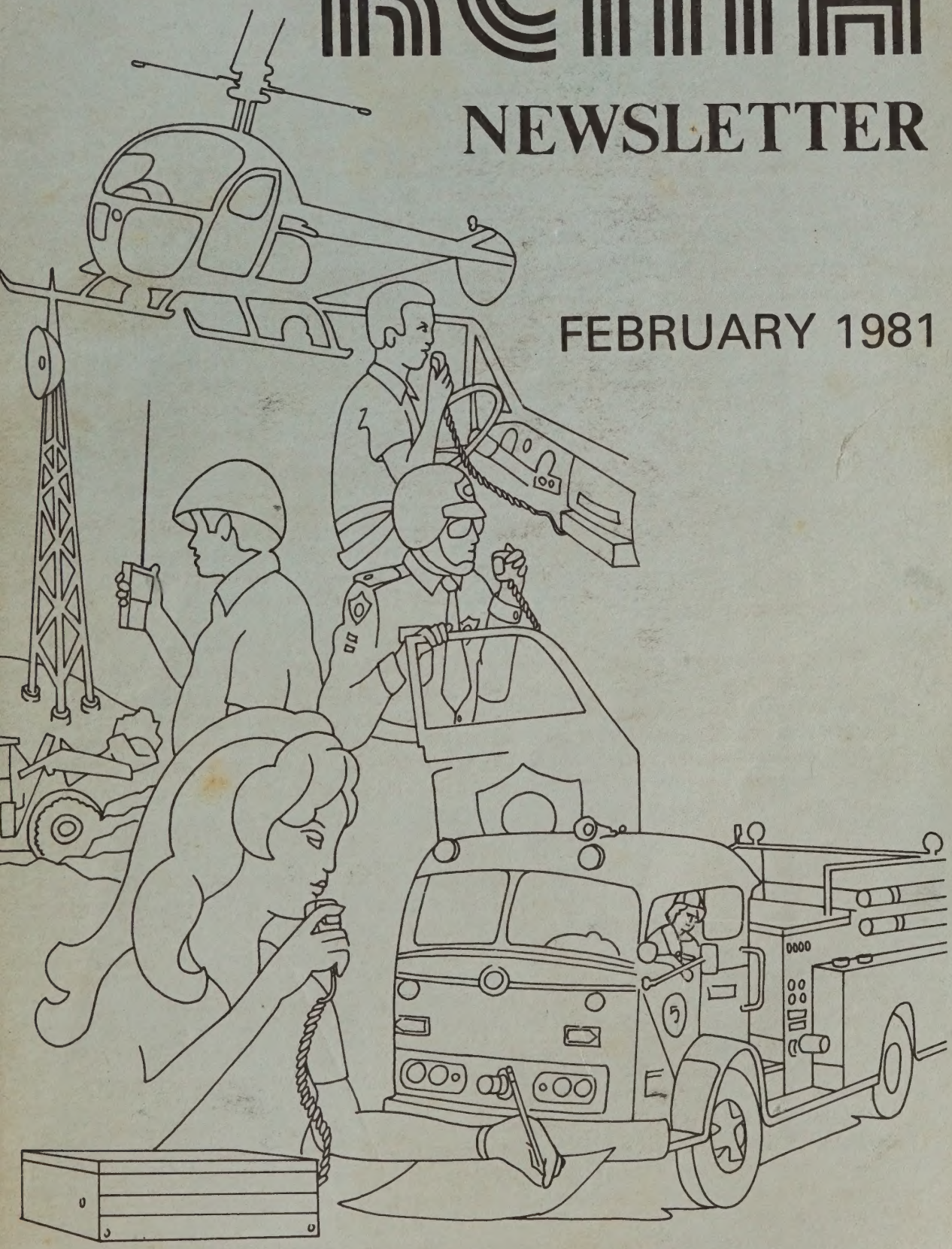
RCMA

NEWSLETTER



FEBRUARY 1981

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

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FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to: RCMA, P.O. Box 4563, Anaheim, CA 92803. This includes matters that relate to renewals, changes of address, newsletter delivery problems, etc.
2. Input to the RCMA Newsletter must be mailed to the proper editors whose addresses are included in the individual column headings. If no particular column seems appropriate, send it to RCMA, P.O. Box 216, Willow Grove, PA 19090 and mark the envelope "For Newsletter."
3. RCMA Newsletter back issues (reprints) are not presently being offered for sale to members.
4. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address in the envelope and mail to: RCMA, P.O. Box 408, Earp, CA 92242.
5. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.
6. If you require a reply when writing to RCMA headquarters or one of the editors, you MUST enclose a self-addressed, stamped envelope.
7. Please only write on one side of the paper.
8. Please don't combine in one letter several items that should go to different addresses.
9. If you are inclined to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.
10. Your RCMA membership number and expiration date appear on your newsletter mailing label.
11. You may join or renew your membership for ONLY one year at a time.
12. The RCMA Newsletter accepts paid advertising. If you would like to place a paid ad, please write to our advertising manager (address above) for our advertising guidelines.

RCMA NEWSLETTER
FEBRUARY 1981 Issue 60
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RCMA, P.O. Box 4563, Anaheim, CA 93803

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The RCMA Newsletter is published monthly by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $10.50 per year for U.S. residents and $12.85 (payable in U.S. funds) for persons in all other countries (dues subject to change). Information contained herein primarily is obtained from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA Newsletter editors and officers are not responsible for the accuracy or validity of information contained herein. RCMA does not necessarily recommend or endorse products or services advertised herein. This publication is copyrighted ©. Reproduction of any material in this newsletter is prohibited without prior written permission.

********* 1980 R.C.M.A. Newsletter back issues are now available.

Price $1.50 per copy

Orders should be sent to: R.C.M.A.
Bill Eli, Secretary
2831 Hermanos Street
Pasadena, Ca 91107

Copies of the newsletter from day one are now being reproduced. The next issue will include ordering instructions and prices. The quality of the reproduction does not match our current standards, but the frequencies are readable and it does represent the growth of The Radio Communications Monitoring Association.

** Calendar **

Send notices of upcoming events for the Calendar section to John Clark, RCMA, P.O. Box 4563, Anaheim, CA 92803. Please send notices well in advance of the Newsletter deadline.

February 20

FRIDAY General Meeting: Mercury Savings and Loan, Valley View and Lincoln Avenue, Buena Park, Ca. 8:00 P.M. Special meeting to honor the founders of The Radio Communications Association.

******* note the date on your label. It is the date your last newsletter in your present membership will be mailed. Not the date on the cover of the newsletter. Your membership ending month is printed on the top line of your label beside your membership number. The cover date on the newsletter is one month ahead of the date it is to be mailed. This is done to allow the postoffice to make a speedy delivery to you before it is out of date.

NEWSLETTER DEADLINES:

*** please note the newsletter deadlines refer to the month the newsletter is to be mailed. Not the date on the cover. Information submitted by November 9 will be mailed to members in December. The December mailing carries a January cover date to assist USPS in their speedy delivery.

February	9	MONDAY Newsletter deadline for "March" Newsletter.
March	9	MONDAY Newsletter deadline for "April" Newsletter.
April	6	MONDAY Newsletter deadline for "May" Newsletter.
May	4	MONDAY Newsletter deadline for "June" Newsletter.
June	8	MONDAY Newsletter deadline for "July" Newsletter.
July	6	MONDAY Newsletter deadline for "August" Newsletter.
August	10	MONDAY Newsletter deadline for "September" Newsletter.
September	7	MONDAY Newsletter deadline for "October" Newsletter.
October	5	MONDAY Newsletter deadline for "November" Newsletter.
November	9	MONDAY Newsletter deadline for "December" Newsletter.

Reports of Meetings and Officers

Send reports (informal accounts) of RCMA meetings, gatherings, etc. which have occured to: John Clark, RCMA, P.O. Box 4563, Anaheim, CA 92803.

The board appointed Professor Robert Slaughter of the Business Division Orange Coast College to serve as Budget and Finance Consultant for the club. This position as with all officers and editors is non paying, but will be of great assistance.

Elections are comming up soon. If you are interested in running for office please contact R.M.C.A. P.O.Box 4563 E., Anaheim, Ca 92803. Any member is eldigible to run for any office. We encourage members from out of the Anaheim area to run. However since the logistics of the newsletter and the bank are located in Anaheim, the treasurer should be somewone local.

Due to the increase in costs, (postage, printing, etc) and the logostics of the newsletter there will be a dues increase starting in January 1981. The member ship fee will be $12.00 per year for state sides members with overseas membership fees prorated. The board has spent several hours discussing this increase. We have now reached the point where the club newsletter that use to be four mimo sheets and mailed to 200 members is now too big to put in one car to pickup at the printers, or to take to the postoffice.

We have adopted a policy of fixing a firm date now on all price announcements The $12.00 newmember or renual price will be in effect from January 1, 1981 to July 1, 1981. We do not anticipate any other increase for next year, but if we do it will be placed in effect after July 1, 1981.

The membership fee for overseas members reflects the additional cost of first class mailing. For the same period of time January 1, 1981 to July 1, 1981 the fees are: Canada, Mexico $13.50, Europe $14.50, and South Pacific or Asia $15.00.

TREASURER'S REPORT

For period ending November 30,1980

Balance as of April 30,1980		$ 3281.40
Received:		
For membership		
New	$ 6138.78	
Renewal	6002.68	
Ads	184.00	
Misc. (sample copies, back issues, & etc.)	101.85	
		+ 12,427.31
Expenses:		
Pace (printing)	5751.94	
Postage	1497.66	
Misc. (officies expence & etc.)	1097.92	
		- 8347.52
Balance		$ 6499.96

THOUGHT waves

Chuck Gysi, Managing Editor, P.O. Box 216, Willow Grove, PA 19090

Will professional sports teams be forced to use scrambling or DVP now?

According to an article in the San Diego Tribune on Dec. 3, a San Diego amateur radio operator told all to a sportswriter about a conversation he overheard on his "amateur" equipment (more likely a scanner).

What the ham heard was communications between the San Diego Chargers offensive coordinator in the press box at the stadium and the offensive line coach on the field during a game with the Philadelphia Eagles.

The ham made a recording of the communications and went as far as to play an excerpt for the sportswriter who duplicated the conversation in the newspaper article, a true violation of the Communications Act of 1934. The act prohibits divulging the contents of radio messages intercepted by a third party.

The ham said he called the Chargers at half-time, however, a receptionist wouldn't patch him into a team official until he played his tape for her. The ham became frustrated when the official was never called to the phone so he tried calling the TV station carrying the game, which hung up on him as well.

The Chargers, meanwhile, became aware something was wrong with their set-up when a scoreboard aide said he overheard the conversations on his walkie-talkie as well.

Now, the Chargers are going back to the blackboard to develop some other method of communicating during the game. It's a shame this ham had to go as far as to tell newspaper about an exciting afternoon's listening. Most of the members of our organization would just consider the incident a good logging. We must keep in mind that divulging what we hear could result in a fine and/or imprisonment by the federal government. Let's not ruin our hobby with publicity like this.

Thanks to Milton Phegley (CA-SD-025) for telling me about this.

(Editor's note: The San Diego Chargers are authorized on 154.57 MHz under call KY 2356.)

HELP! The newsletter staff still needs assistance. First of all, an assistant newsletter editor still is needed. Unless a qualified person surfaces soon, I may be forced to review what I do each month so that I can cut back somewhere. If I had some help, I'd be able to spend more time on making the newsletter better. The assistant editor should be able to help prepare various columns for the newsletter (usually just a matter of typing) and to assist with some of the correspondence (not a whole bunch). It would be best if the person resided in the Philadelphia or New York metropolitan areas, however, I will work with anyone qualified anywhere. If you can type neatly and write clearly, drop me a line.

We also have a need for a new Satellites column editor as well as a Monitoring and the Law editor. Doesn't anyone out there have an interest at all in these columns. The Law column has been without an editor for many months now, yet it should be the most important column in our newsletter.

There are more than a half-dozen RCMA chapters across the nation now with new ones forming each month. If you are forming a chapter or your chapter has scheduled a meeting or tour, please let us know so we can publicize it.

YOUR THOUGHTS

P.O. Box 216, Willow Grove, PA 19090

To the editor:

Congratulations! I'm glad to see you are doing the same great job with the RCMA Newsletter that you do with the Business, Etc. column.

In regard to a letter in the November issue dealing with Firecom in New York, they also charge a fee for testing a scanner for you. I thought most shops did this for you as a free service.

I also would like to mention that the All Ohio Scanner Club has more than 30 RCMA members who have joined us in the past year. We are not as big as RCMA, but we do have a unique idea. We cover only Ohio material. Feel free to write us for information.

I also would like to thank Iden Rogers for the great job he did as editor as well. I'm glad to belong to RCMA, a club well-known and respected the world over. The best to RCMA in the future.

Jerry Callam (OH-015)
Mount Vernon, Ohio

To the editor:

This is a follow-up to my letter published in the November RCMA Newsletter.

I had sent away for the Police and Fire Callbook by Michael T. McKenna, published by Mitchell Publications of Seahurst, Wash. A money order was sent on Nov. 23, 1979, and I finally received the publication today, Nov. 17, 1980.

In all fairness, I must report that apparently the publisher sent the book, however, I never received it. I wrote several times trying to establish what had happened and contacted Canadian and U.S. postal authorities in an attempt to find out what happened. All I came up with was a photocopy of my canceled money order. On Oct. 31, 1980, I received a long-distance telephone call from the publisher who explained that a copy was sent at the time I ordered the book and they were trying to trace it.

I am sure the telephone call cost a bit and I appreciate the effort. I also appreciate the book turned out to be excellent. I can't blame the publisher for being reluctant to keep sending out books that never get delivered. They cost money. On the other hand, I was left in the dark on the subject.

Thanks for your efforts on my behalf; it is appreciated. I hope other members have better luck reacting to suggestions in the newsletter, at least in speed of delivery.

The wait is worth the effort because the book is excellent. I wish such a volume was available here.

J.B. Rae (CAN-019)
Peterborough, Ontario

To the editor:

I would like RCMA members to know that I did not authorize CB Magazine (Sept. 1980, page 18) to print any article using my name. I didn't even write an article, however, I did write a letter to them in April. They even changed the words around.

Don't those dummies know they aren't supposed to print sensitive Secret Service frequencies? Keep up the good work on the newsletter.

Eddie Muro (NY-041)
Woodmere, New York

(Editor's note: There's no law prohibiting the publication of sensitive federal government or law enforcement frequencies. It is, however, a question of ethics. It has been the policy of this club to never publish any frequencies that an editor feel is sensitive and we will continue this. Most of us know what these frequencies are and there is no need to disseminate this information to a wider audience we know nothing about. We hope that commercial publications will honor our ethics as well. They do serve a purpose.)

To the editor:

It may be a little late, but congratulations on becoming the new managing editor for RCMA.

I have been thinking about writing this letter for the past few months. RCMA has come a long way from the 81 members it had when I first joined back in 1976 to the 2,000 members today.

Not only has the club come a long way, the newsletter has become bigger and better than the eight-page newsletter back in 1976.

Members like you and Iden Rogers have made the club and newsletter what it is today.

I also want to say that it is a good idea to add shortwave to our club's newsletter. As someone said before, if they don't want to read it, they don't have to.

I used to live in California (ex-CA-OR-031) until March 1980. I got to meet and know Don Erickson. I think he will serve our club well as ANARC representative. I used to belong to four shortwave clubs. I don't know how many Don is in, but I bet it's a lot. I used to see him about once a month at the American Shortwave Listeners Club meeting.

I do not want to take anything away from David Crowley, but it is too bad that we do not have a beginners column on shortwave. David is doing a good job with his column.

I know there are a lot of good shortwave clubs around. However, RCMA is a radio club and shortwave is radio. So why not have more about it? As long as we get someone to write the columns.

Charles L. Epps (MO-017)
St. Louis, Missouri

MONITORING & THE LAW

Send all articles, references, copies of monitoring laws and questions pertaining to the legal aspects of monitor radio listening to:

EDITOR NEEDED!

We need a new Monitoring and the Law column editor. The editor of this column should have some familiarity with monitoring laws and it would be desireable if he/she had a collection of monitoring laws from around the nation. This editor would be required to generate some information for the column as well as organize input from the general membership. If you are interested, please TYPE a letter telling about yourself and qualifications to: RCMA Managing Editor, P.O. Box 216, Willow Grove, PA 19090.

The following is not a paid advertisement, but an announcement the board feels will be of benefit to many of the R.C.M.A. members in the LA area.

Gordon West CAOR017 a long time R.C.M.A. member is the class instructor. While the class is directed at getting you an amateur radio license, the material coverd will assist you in understanding some of the technical aspects of monitoring.

For R.C.M.A. members out the greater LA area, the board suggests you contact your local community colleges for similar classes. These classes may be taken at no cost or minimal cost and allow you to be part of the bands we monitor.

HAM RADIO CLASSES

Fast Quick Non-Technical Instruction
To Pass Both Novice & Technician (Voice Privileges)
FCC Tests. Only 9 Weeks Long, 1 Night A Week For 3 Hours!

CLASSES ARE FREE THROUGH ORANGE COAST COLLEGE AND COASTLINE COLLEGE DISTRICTS. CLASSES MEET ON MONDAY OR TUESDAY EVENINGS, 7-10 P.M. SPECIAL WEDNESDAY NIGHT CLASSES AVAILABLE FOR CLUBS (FEE). COLLEGE CREDITS EARNED.

REGISTRATION INFORMATION

SPRING CLASSES BEGIN ON MONDAYS OR TUESDAYS, FEB.1ST OR FEB. SECOND. CALL, GIVE COURSE NUMBER, AND RESERVE A SPOT.
OCC PHONE #556-5772 COURSE MARA137AD
CCC PHONE #963-0824 COURSE IA 060 AB

NEXT CLASS

- BEGINNER CLASSES BEGIN ON MONDAYS OR TUESDAYS, FEB.1 OR FEB.2. CALL 549-5000 FOR DETAILS

NOVICE and TECHNICIAN
BEGINNER CLASS

OCC CLASS NUMBER IS MARA 137 AD
CLASS BEGINS FEB.1ST. ON MONDAYS 7-10PM

COASTLINE CLASS NUMBER IS IA 060 AB
CLASS BEGINS FEB.2ND. ON TUESDAYS

- 9 Weeks—No Code or Technical Prerequisite Needed.
- Novice Code (5 wpm) and Written Test Administered In Class. This May Be The Last Class Where This Is Allowed By FCC Order!
- Prepares You For The Technician Class Test At The FCC in Long Beach. No Code Test With Novice License.
- Concentrated Study on FCC Type Test Questions & Answers. You Learn ONLY What Is Asked on The Tests.
- Past Class Test Results:
  NOVICE CLASS—Passed: 474 Failed: 0
  TECHNICIAN CLASS—Passed: 312 Failed: 14

THE NEW FCC WRITTEN EXAMS ARE NOW IN USE. PRESENT STUDY BOOKS DO NOT COVER THE NEW MATERIAL. THIS CLASS DOES COVER THE NEW MATERIAL!

NOVICE, TECHNICIAN, and GENERAL
OPERATING CLASS

THE OPERATING CLASSES WILL BEGIN IN APRIL THROUGH COASTLINE COLLEGE. COURSE NUMBER: IA 061 AB

- Prerequisite—Enrollment In A Novice Class or A Valid Novice or Higher License.
- Introduction To Amateur Radio Equipment and Accessories.
- Introduction to Various Ham Emissions
- Introduction to Ham Clubs & Magazines
- Ham Radio Operating; A New Band or Mode Each Week.
- Ham Antennas & Grounds
- Review of Typical FCC Test Questions For Technician/-General Element 3 Exam.
- Code Practice to Increase Code Speed

It's Easy to Move Up to Amateur Radio . . . The Space Age Hobby!

TUNE IN THE WORLD WITH HAM RADIO

Beginners ??? Corner

Have a question? If you are a new scanner listener and don't understand something about monitoring that most everyone else seems to understand, send in your question. When possible, your question and the answer will be printed. No answers will be sent by return mail. Your name will not be printed. Write to: David E. Crowley, 7234 Balson Ave., University City, MO 63130.

Q. I've heard two-meter hams and forestry dispatchers speak of "desensitization" in regards to repeater operation. What, exactly, is desensitization?

A. The front end, or radio frequency (RF) amplifier section of a repeater is tuned to optimize reception of the desired frequency, say 146.340MHz. Also, the front end may have an automatic RF gain control to compensate for wide variations in the amplitude, or strength, of incoming signals. In a repeater the receiving and transmitting antennas are very close together, so that a transmitted signal at 146.940 can easily find its way into the receiver tuned for 146.340MHz, unless special filters are used to sharpen the tuning of the receiver for its intended frequency. In desensitization, the transistors in the RF amplifier and automatic gain control are driven to saturation by the strong off-frequency signal, imparing their ability to amplify the desired on-frequency signal, all of which makes the receiver appear to have lost its sensitivity.

Q. I'm a new monitor listener and already I'm feeling cramped by the 10-channel limit of my Regency M-100. Would you recommend the Regency K-500 or the Bearcat 250, and can you tell me if both can be programmed for out-of-band reception?

A. There are many tricks for programming the Bearcat 250 to receive signals beyond its presumptive frequency limits, including those men-in CB Magazine. However there are several versions of the 250, with the recent versions displaying fewer birdies and other kinds of interference that their predecessors. This means better performance for in-band signals, but fewer opportunities for exotic programming tricks to capure those out-of-band frequencies. Take your choice. As far as I know the K-500 can be programmed beyond its stated limits simply by pressing the decimal point key before entering the frequncy. The best advice I can give is to check with knowledgeable local RCMA members who have experience with these scanners.

Beginners tip for the month: Please be patient for the explanation of image reception that I promised in last month's column. In the meantime order from the U.S. Government Printing Office, Washington DC 20402, the Consumers Guide to Federal Publications and Government Periodicals and Subscription Services Price List 36. The Consumers Guide is the key to the Subject Bibliographies which list almost all GPO publications with their prices. Price List 36 is the key to government periodicals ranging from FCC Rules to intelligence and military publications that anyone would presume to be highly classified, but in fact, can be ordered by anyone. These two free publications provide a rational system for accessing government materials, a system that I don't know how I did without before.

Marketplace

Gary M. Darcy
Column Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members, resulting from ads printed in this column. Send to: RCMA MARKETPLACE, c/o GARY M. DARCY, P. O. BOX 1329, PALMDALE, CA 93550. Please be sure to include your membership number.

FOR SALE: Bearcat BC-300. Brand new, unused. $ 365.00 certified check or money order only. Contact: J. WHITTLE (GA-021), P.O. Box 1132, Dublin, GA 31021.

FOR SALE: Plectron 8-channel VHF Hi-Lo scanner w/priority scan. Uses Regency type crystals. Excellent condition. $ 145.00, money order only, please. Contact: BOB ANDRYCHA (NY-003), 119 Burgundy Terrace, No. Tanawanda, NY 14120 or phone 716-688-8846.

FOR SALE: Regency Digital Flight Scan. 16 channels w/2 priority channels. 108-136 mhz frequency synthesized coverage. Has been in box most of the time and is in very good condition. Blank warranty card included. $ 195.00 certified check or money order. Contact: JOHN LAND (IN-039), R.R. 7 Box 210, Greenfield, IN 46140 or phone 317-894-3289. No collect calls.

FOR SALE: Bearcat BC-210. Used, however in good condition. $ 115.00 cashiers check or money order, includes shipping in the U.S. and all original equipment in carton. Contact: D. K. BASSETT (CA-OR-134), P. O. Box 3191, Orange, CA 92665.

FOR SALE: Motorola R-1121/TRC-87 UHF aircraft receiver. 225.00-399.95 mhz frequency synthesized coverage in 50 khz steps. $ 475.00 includes shipping. Contact: LARRY BROWN (MI-011), 1526 Dixon, Flint, MI 48506 or phone 313-742-1868.

FOR SALE: Bearcat BC-210 w/416-450 govt. UHF. Very good condition with manual & antenna. $ 95.00 certified check or money order, includes U.P.S. shipping. Contact: ALAN M. LEDER (NJ-084), 246 Lenox Ave., Paterson, NJ 07502.

FOR SALE: Regency Digital Flight Scan. 16 channel aircraft band w/2 priority channels. 108-136 mhz frequency synthesized coverage. Search w/delay, can stop when signal received. Good condition with manual & antenna. $ 175.00 certified check or money order, includes U.P.S. shipping. Contact: ALAN M. LEDER (NJ-084), 246 Lenox Ave., Paterson, NJ 07502.

FOR SALE: Regency K-100. In original box w/warranty card. Works perfectly. Sell for $ 175.00 or trade for M-100 in new condition under warranty. Certified check only and unit will be shipped U.P.S. insured. Contact: ED LINSKEY (CA-SM-001), P.O. Box 85, Burlingame, CA 94010 or phone 415-344-2141 evenings.

FOR SALE: Sears VHF-UHF programmable scanner. Reconditioned. 16 channels with cards. Will ship. $ 150.00. Contact: RICK ILLES (CA-LA-283), 507 Electric Ave., Seal Beach CA 90740 or phone 213(?)-598-5913.

FOR SALE: G.E. Mobile I Searcher 4-ch. tunable scanner, no crystals, VHF-Hi only, used very little, $ 25.00 or best offer, certified check or money order, SASE. Contact: DAVID PAGE (ME-013), 8 Shirley St., Apt. 3-A, Skowhegan, ME 04976.

FOR SALE: Sears 10-ch. crystal controlled scanner in excellent working condition, VHF Hi-Lo/UHF. $ 100 or best offer, certified check or money order, SASE. Contact: DAVID PAGE (ME-013), 8 Shirley St., Apt. 3-A, Skowhegan, ME 04976.

FOR SALE: Crystals (10.7 IF), one each of the following: 39.62; 152.33; 152.60; 155.04; 155.07; 155.145; 155.22; 155.34; 155.40; 155.64; 156.00; 161.73; 163.25. $ 2.00 each or all for $ 22.00 certified check or money order, SASE. Contact: DAVID PAGE (ME-013), 8 Shirley St., Apt. 3-A, Skowhegan, ME 04976.

FOR SALE: Regency Crystals for the following frequencies: 33.74 / 39.10 / 41.25 / 44.74 / 44.90 / 47.34 / 47.62 / 146.61 / 146.67 / 146.70 / 146.73 / 147.06 / 148.15 / 148.175 / 151.01 / 151.07 / 151.055 / 151.175 / 151.535 / 152.09 / 152.57 / 153.95 / 154.055 / 154.115 / 154.175 / 154.31 / 154.34 / 154.37 / 154.65 / 154.665 / 154.695 / 154.71 / 154.74 / 154.755 / 154.785 / 154.80 / 154.935 / 155.07 / 155.025 / 155.16 / 155.22 / 155.34 / 155.67 / 155.91 / 158.79 / 158.82 / 158.88 / 158.97 / 159.15 / 162.55 / 460.250. $ 3.00 each or all 51 for $ 100.00. Will also trade for Bearcat 210 or 220 or a Regency ACT-W10. Contact: T. G. BANKS (ME-005), P. O. Box 3174, Lewiston, ME 04240 or phone 207-786-4110 after 6 pm EST.

FOR SALE: Regency Aircraft Crystals for the following frequencies: 118.15 / 119.75 / 119.6 / 119.9 / 120.35 / 120.9 / 121.5 / 122.2 / 122.6 / 122.8 / 123.0 / 123.6 / 124.05 / 124.25 / 125.5 / 126.2 / 127.6 / 127.75 / 128.05 / 128.2 / 128.35 / 133.25 / 134.1 / 134.225 / 134.3 / 134.85. $ 5.00 each or all 26 for $ 100.00. Will also trade for a Bearcat IV, 210, or 220 or a receiver capable of receiving 225-400 mhz aircraft. Contact: T. G. BANKS (ME-005), P. O. Box 3174, Lewiston, ME 04240 or phone 207-786-4110 after 6 pm EST.

FOR SALE: Tennelec Memoryscan MS-2 VHF Hi-Lo/UHF 16 channel programmable scanner. $ 150.00 will ship U.P.S./C.O.D. Contact: GARY M. DARCY (CA-LA-059), P.O. Box 1329, Palmdale, CA 93550.

WANTED: Information on any old or older Realistic tunables or scanners or surplus for sale. Need to know band coverage, price and condition. Contact: BILLY W. BRIGHTWELL (GA-019), Rt. 2 Box 218-B, Hull, GA 30646.

WANTED: SBE Opti-Scan. Should be in good working condition. I will return all inquiries. Contact: LINWOOD R. MIXER (VT-002), P.O. Box 693, Barre, VT 05641 or phone 802-479-0840.

WANTED: Heathkit Q Multiplier or similar (not audio). Contact: LARRY BROOKWELL (CA-SD-024), 1826 Cypress St., San Diego, CA 92154 or phone 714-429-9728.

WANTED: AN/URR-35C 225-400 mhz aircraft receiver in good working order, or any other type receiver capable of the 200-400 mhz band. Contact: CPL DAVID N. SILVA (MA-008), MABS-14 Crash Rescue, Stop 53, Cherry Pt., NC 28533.

FOR TRADE: Will trade Bearcat 250 in good condition for 2 crystal scanners, prefer Bearcat or Regency. Both must be in good condition with any crystals. Need scanner for house and one for car. Contact: ROBERT LAZICH (WI-003) phone 715-677-3243.

FOR SALE: Regency crystals for the following frequencies: 146.55 / 146.52 / 155.415 / 37.20 / 146.79 / 162.55 or will trade for 122.8 / 122.1 / 118.7 / 119.7 / 122.95 / 126.8 / 125.6. Contact: JEFF WESTON (AR-010), 102 Mt. Tabor St., Hot Springs, AR 71901.

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members, by telephone, letter, or cassette tape in a certain geographic area, or with members who have similar listening interests, this is the perfect place for you to make your desires known. Remember -- those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address.

Write to: John W. Darr, P. O. Box 1652, Cheyenne, WY 82001

EDITORIAL COMMENT: As you've possibly detected, I've established an editorial "style" for the column, as evidenced below. In order to make the ads as readable as possible, I've given each entry a concise headline. Then, with only slight editorial license, I've listed the member's requested ad verbatim. I've then added a date to each ad -- either the date of the member's letter, or if that's unknown, the date I received it. And the ads are listed in the order of those dates, with the most recent last. I'd appreciate any comments you may have -- good, bad, or otherwise. I'm not promising to change, but I will listen! --Ed.

GOODYEAR BLIMP FREQS San Diego member would like operating, air-to-ground, etc., frequencies for the Goodyear blimps. [11-10-80]
MILT PHEGLEY (CA-SD-Ø25), 10400-241 Caminito Cuervo, San Diego, CA 92108

CALIFORNIA FIRE FREQS New New York member wishes information on California fire frequencies. Interested in "TAC" listings for various counties. [11-12-80]
ED GEERY (NY-129), 170 Brookview Drive, Irondequoit, NY 14617

RAILROAD COMMUNICATIONS An Indiana member would like to hear from United States and Canadian members interested in railroad communications. [11-17-80]
TERRY MILICZKY (IN-ØØ3), 2505 Shady Oak Drive, Fort Wayne, IN 46806

PENNSYLVANIA UNIT NUMBER LISTS Pennsylvania member wants to obtain unit number lists for the following counties in his home state: Lancaster, Carbon, and Columbia. He is looking for unit and station number lists for police and fire departments, as well as a list of codes for these same counties. He is willing to exchange information for Schuylkill, Berks, and Lehigh Counties. [11-17-80]
MARTY RIPKEE (PA-Ø85), P. O. Box 42, Schuylkill Haven, PA 17972

BACK ISSUES OF RCMA NEWSLETTER New member in northwest suburban Chicago area would like to borrow past issues of RCMA Newsletter (prior to October 1980 issue) for copying purposes, since Newsletter back issues are not otherwise available. Prefers someone in west or northwest suburban Chicago area. [11-21-80]
KEVIN McLINDEN (IL-149), 141 S Hale, Bartlett, IL 60103 // (312) 289-9687

PEORIA ILLINOIS FREQS Central Illinois member wishes to exchange all types of frequencies -- police, fire, medical, etc -- that apply to a 50-mile radius of Peoria. Also interested in government and military frequencies in same area. [11-21-80]
PHIL HOLLER (IL-159), 9424 Buckingham, Mapleton, IL 61547

OUT-OF-BAND FREQS Same member (as above) wants information about receiving out-of-band frequencies (if it's possible!) on a Bearcat 300. [11-21-80]
PHIL HOLLER (IL-159), 9424 Buckingham, Mapleton, IL 61547

BUNDLES FOR BRITAIN? HELP! Member in England wants to buy a Scanner Beam antenna from Grove Enterprises -- but they are unable to ship via air mail because of dimension restrictions imposed by U. S. Postal Service. Can any American member assist? Collection from London airports is possible, if the item could be delivered there. Please write your suggestion, if you can be of help. [11-24-80]
(Ed. note: letter rate to England is 31¢ per half-ounce.)
BRIAN HEMINGWAY (ENG-ØØ2), 9, Hitherwood, CRANLEIGH, Surrey, GU6 8BN, ENGLAND

MAINE FREQS Member looking for information on Maine frequencies of all kinds, and will be glad to exchange frequency lists. [11-25-80]
DAVID PAGE (ME-Ø13), 8 Shirley Street, Apt. 3-A, Skowhegan, ME 04976

NEW JERSEY POLICE CODES Garden State member is seeking code lists of the following police departments: Newark, Passaic, and Clifton, NJ. He can exchange such information for several other PDs. [11-26-80]
BRIAN SMITH (NJ-Ø55), 137 Amsterdam Ave, Passaic, NJ 07055 // (201) 777-5760 after 6 p.m.

FLORIDA FREQS Maryland member desires information on radio frequencies for police, fire, security, transit, etc, for Florida cities in vicinity of Tampa, Clearwater, and Orlando. Will exchange his local frequencies and codes. [11-28-80]
JOE M. LEWIS (MD-Ø15), 3002 Gumwood Drive, Hyattsville, MD 20783 // (301) 779-8374 between 6 pm and 9 pm EST only

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COMMUNICATIONS PROFILE

RCMA, P.O. Box 216, Willow Grove, PA 19090

This column is for special projects that explain various radio systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible due to length. If you are inclined to submit a report as the one below appears, please follow No. 9 in the inside front cover of the newsletter.

The following is a continuation of a report by Dave Litsinger (TX-032) that has been running in the Public Safety-Central column. It details county radio systems in Texas.

CALDWELL COUNTY

LOCKHART	SD	155.730/154.815	KVN670	
		37.26 / 37.26	KKX500	
	PD	155.730/	KVN671	SO RADIO
		/155.370	KVN671	PI
	FD	154.370/154.370	KMA964	
	LG	158.820/158.820	KKW827	
LULING	PD	155.730/	WSR51	SO RADIO
		154.950/155.370	KXZ449	PI
	LG	154.980/154.980	KDD988	
		37.18 / 37.18	KYG631	
	SE	47.54 / 47.54	KJK761	LULING VET CENTER

FAYETTE COUNTY

LA GRANGE	SD	155.655/155.740	KVN672	
		154.950/	KVN672	POLICE INTERSYST.
	PD	155.655/	KVN673	SO RADIO
		154.950/155.370	KVN673	PI
	LG	37.26 / 37.26	KYL328	
	LC	37.26 / 37.26	KXQ790	
	SE	467.950/	M	
		467.975/	M	
		468.175/	M	
FLATONIA	PD	155.655/	M	SO RADIO
		154.950/	M	PI
SCHULENBERG	PD	155.655/	WYC753	SO RADIO
		154.950/	WYC756	PI
	LG	37.26 / 37.26	KKM883	
		154.965/154.965	KKM883	

HAYS COUNTY

SAN MARCOS	SD	154.800/155.865	WSR53/KVN674	CH-1
		155.130/	M	CH-2
		155.950/	M	CH-3 PI
		154.830/	M	??
	PD	154.995/154.995	KVN675/KDG247	CH-1
		/155.130	KVN675	
		154.950/155.370	KVN675	PI CH 3-4
	HO	/155.220	KVT598	HAYS MEM. HOSP.
		155.340/155.340	KQH897	
		/462.950	WZW980	HAYS MEM. HOSP.
		/462.975	WZW980	"
		/463.175	WZW980	"
	SE	467.950/	M	HAYS CO EMS
		467.975/	M	HAYS CO EMS
		468.175/	M	HAYS CO EMS
	UN	155.700/155.770	KVN676	SWTSU-PD CH-1
		154.650/154.650	KVN676	
		154.950/	KVN676	SWTSU-PD PI
KYLE	PD	154.800/	WAL330	SO RADIO
		154.950/	M	PI
		155.130/	M	SO/PD
	LC	/155.865	?	(SO BASE?)
WINBERLY	LC	155.895/155.895	KGU911	

LEE COUNTY

GIDDINGS	SD	155.685/154.755	KVN677	
		37.26 / 37.26	KKJ717	
	PD	155.685/	KVN678	SO RADIO
		154.950/155.370	KVN678	PI
	LG	158.940/158.940	KCU309	
	LC	155.805/155.805	KMA910	
	HO	155.220/155.220	KVR843	LEE MEM HOSP
		/155.340	KVR844	LEE MEM HOSP

LLANO COUNTY

LLANO	SD	155.430/154.815	KVN679	
		155.430/	WSR54	1/CO
		154.950/155.370	KVN680	INTERSYSTEM
		37.18 / 37.18	KKO941	
	LG	37.10 / 37.10	KKT619	
	SE	155.340/155.340	KKV649	LLANO CO MEM HOSP
SUNRISE BEACH	SD	155.430/	WAX604	SO RADIO 1/CO

WILLIAMSON COUNTY

GEORGETOWN	SD	155.625/154.860	WSR57/KVN687	
		154.650/	??	??
		154.950/	M	PI
	PD	155.625/	KVN688	SO RADIO
		155.130/155.130	KVN688/KKJ826	
		154.950/155.370	KVN688	PI
	LG	/158.760	KZM819	
		155.820/155.820	KKQ719	
	LC	153.815/158.865	WAX587/KXG948	WMSN CO EMS
		153.815/	WBN473	
	HO	/462.950	WZW981	GTN MEM SURG.HOSP.
		/462.975	WZW981	"
		/463.175	WZW981	"
	SE	467.950/	M	WMSN CO EMS
		467.975/	M	"
		468.175/	M	"
CEDAR PARK	SD	155.625/	WBZ347	SO RADIO
	PD	154.950/155.370	KYB304	PI
	FD	154.370/154.370	KKL786	
	LG	155.085/155.085	KYB801	
	LC	153.815/	WBC686	(ALSO CO.EMS)
FLORENCE	PD	155.625/	WBN919	SO RADIO
		154.950/	M	PI
GRANGER	PD	155.625/	KQQ235	SO RADIO
		155.250/155.250	KQQ235	
		154.950/	KQQ235	PI
	LC	153.815/	WAN428	(ALSO EMS)
LEANDER	PD	155.625/	WXY418	SO RADIO
		155.790/155.790	WXY418	
		154.950/155.370	WXY418	PI
	LG	45.08 / 45.08	WYK701	
LIBERTY HILL	LC	153.815/	WAN429	(CO EMS)
ROUNDROCK	PD	155.625/	WSR58	SO RADIO
		155.625/155.625	KZT510	B/M
		155.625/	WXT755	
		155.520/155.520	KZT510	
		154.950/155.370	KZT510	PI
	FD	154.250/154.250	KLV493	
		154.355/154.355	KLV493	
	LG	37.26 / 37.26	KRJ883	
	LC	153.815/	WBC687	(CO EMS)

COMMUNICATIONS PROFILE CONTINUED

WILLIAMSON COUNTY (CONT)

TAYLOR	PD	155.625/	KVN689	SO RADIO	
		155.130/155.130	KKA327		
		155.250/155.250	KVN689		
		154.950/155.370	KVN689	PI	
	FD	154.430/154.430	KKW929		
	LG	153.875/153.875	KIC466		
	LC	153.815/	WAN430		1/CO
		153.815/	WAU795		1/CO
		153.815/	WBN452		1/CO

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below. For an annual subscription to the monthly "ANARC Newsletter" send $3.50 to: ANARC, 557 N. Madison Ave., Pasadena, CA 91101.

THUNDER BAY, ONTARIO, OVERWHELMING CHOICE FOR ANARC 1981

By a vote of 13 to 2, with one club not voting, ANARC's Board of Representatives chose Thunder Bay, Ontario, over St. Louis, MO. as the site of the 1981 ANARC Convention. Here are the facts:

DATE:, ANARC 1981 CONVENTION, Fri, Sat,Sun. JULY 17, 18,19, 1981

HOST: Canadian SWL International, Thunder Bay, Ontario, Canada.

FACILITIES: Airlane Motor Hotel, Thunder Bay, Ontario, Canada

INFORMATION: Writeto - CSWLI -ANARC '81, P. O. Box 142, Thunder Bay, Ontario, Canada, P7C 4V5.

Details on Registration costs and programming will be printed in the ANARC Newsletter as they become available.

Feb

7 - RCMA Chicago Area Chapter meeting at 1:00 p.m. at Nancini's Restaurant, 5555 St. Charles Rd., Berkeley, IL 60163. Just 2 blocks east of the St. Charles Rd. exit on the Eisenhower Expwy. Extension.

13 - Minnesota DX Club meeting at the home of Larry Lundberg, 3824 56th Avenue North, Brooklyn Center. Phone 537-0181.

14 - SCADS meeting in Huntington Beach, California. There will be a receiver display and HAP auction. For details and map, send a SASE to SCADS, 16182 Ballad Lane, Huntginton Beach, CA 92649.

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to: Robert Berezowski, 5832 Dalhousie Drive NW, Calgary, Alberta T3A 1T1 Canada.

Well I hope you all had a great Christmas and New Year. You are probably wondering why you can read this month's column. Well I have acquired an electric typewriter with pica print (10 letters to the inch compared to 12). I hope you find it satisfactory.

This month I'd like to start out with some more mobile phone channels. These are in addition to the ones I printed in November 1980.

152.495/157.755	XJ
152.525/157.785	XK
152.555/157.815	XL
152.585/157.845	XP
152.615/157.875	XR
152.645/157.905	XS
152.675/157.935	XT
152.705/157.965	XU
152.735/157.995	XV
152.765/158.025	XW
152.795/158.055	XX
152.825/158.085	XY

Those channels were supplied by Doug (CAN-041). Don't overlook this service in your listening. You never know what can be heard on these channels. It's hard to believe but some people don't seem to realize what they are saying is being transmitted over high power transmitters to anyone who wants to listen. Also in some departments police sargeants and fire chiefs have mobile phones. I know that here in Calgary they do and frequently make use of them. Even if you don't listen regularly (I don't) they are nice to have if you ever need them.

Before I continue the list for B.C. I would like to pass along a few corrections to the list I published back in December 1980 passed along from Steve(CAN-047) in South Burnaby. RCMP Freeway Dispatch #1 is 142.035. 140.130 is #2. They are both repeater outputs. Steve says that 143.035 is probably a typo error. As for Surrey 142.305 is the dispatch repeater output. Their dispatch is simulcast on 142.425, reason unknown. Steve guesses that it may be another repeater to fill in dead spots. This sounds like a good theory although I don't know what the topography is like there.

The general useage pattern appears to be:

138 Mobile inputs to 142 MHz RCMP repeaters
139 Simplex Tactical/Dispatch RCMP channels, Port Moody Police
140 Simplex or Repeater outputs
141 Only station heard is Maple Ridge Detachment
142 RCMP Repeater outputs
143 Repeater outs, Vancouver Police & Public Works, CLEU, and B.C. Dept. of Highways.

In general the RCMP 142 MHz repeater inputs are 4.09 MHz lower except for Burnaby info input of 138.495. Steve does not have the repeater inputs for the 140 MHz repeaters.

The New Westminster Police no longer use 155.790. They now use a repeater whose output is 143.145. Port Moody City Police have been heard coordinating with Coquitlam RCMP on TAC 2 139.320 for major crimes. Port Moody has a small police force and when

a major crime occurs the Coquitlam RCMP usually provides extra manpower, tracking dogs, etc.

Steve also provided this little interesting story. The Blaine U.S. Border Patrol operate on 163.625. When they want a Canadian vehicle checked on CPIC, they call White Rock RCMP on 163.625. White Rock responds on 140.430. Obviously they monitor each other's frequency. RCMP Freeway Patrol Unit A (99 Hwy) uses this technique to communicate with Delta PD. They usually say "on monitor" as part of the call.

Very interesting Steve and thanks a lot for writing. I've said it before and I'll say it again. If any member has any corrections to what I write in the column or has anything to add (as Steve did) please write to me and I will print it. It's better to have everyone know rather than just one. If you feel the material is too sensitive to be published, write to me anyway. If a member asks for the information not to be published, I will, at the members option, pass it on in individual correspondance. The point I am trying to make here is <u>write</u> or <u>call</u> me.

The following lists for BC have been provided by Myron (CAN-057), Steve (CAN-047), Dave (CAN-027) and Lloyd (CAN-059).

Campbell River	RCMP	155.295
Collwood & Sooke	RCMP Dispatch	155.670
	TAC 2	155.850
	Repeater	155.700
Courtney	RCMP Dispatch	155.295
	Repeater	155.590
Duncan	RCMP Dispatch	155.745
	TAC 2	155.850
	Repeater	155.700
Esquilmalt	Police F1	155.550
	F2	155.490
	Military Police	149.140
	Army Prevost Police	172.250
Island RCMP	Parksville, Chemainus, Ladysmith	153.980
	Tofino, Ucluelet	155.985
	Shawnigan Lake	155.745
Naniamo	RCMP Dispatch	153.980
	TAC 2	155.850
Oak Bay	Police Dispatch	155.550
	" "	155.490
Port Alberni	RCMP Dispatch	155.590
	TAC 2	155.850
Saanich	Police Dispatch F2	155.400
Burnaby	Fire Dept Dispatch (R)	153.770/154.400out
		154.220
	Main Fire District Dispatcher	154.815
Agassiz (oops)	Fire	169.710
Campbell River	Fire Dispatch	153.830
Chilliwack	Fire Dispatch	154.190
Colland & Sooke	Fire Dispatch	156.030
Coquitlam	Fire Dispatch	(R)159.120
Delta	Fire Dispatch	(R)155.430
Duncan	Fire Dispatch	154.370
	Ambulance Dispatch	149.680
Esquilmalt	Fire Dispatch	155.550
	Military Fire & Ambulance	149.650
Island Fire Dept.'s	Cumberland, Union, Fanny Bay	155.830(?)
	Cowichan	154.130
		154.190
		154.250
		154.355
Langley	Fire Dispatch	169.140
Maple Ridge	Fire Dispatch	154.370
Matsqui	Fire Dispatch	154.890

CALANDER CONTINUED

Mission	Fire Dispatch	169.080
New Westminster	Fire Dispatch	156.150
Naniamo (oops)	Fire Dispatch	154.010
	Ambulance Dispatch	149.680
North Fraser	Fire	169.080
North Vancouver	Fire Dispatch	154.070
Oak Bay	Fire Dispatch	156.030
Port Alberni	Fire Dispatch	169.410
	Fire Dispatch	169.230
Richmond	Fire Dispatch	(R)153.830
Saanich	Fire Dispatch	156.030
Squamish	Fire Dispatch	158.865
Surrey	Fire Dispatch	(R)154.310
University of B.C.	Fire	154.250
Vancouver	Fire Primary Dispatch	(R)149.050/151.505out
	Auxiliary, Tactical	150.635
Victoria	Fire Dispatch	155.445
	Ambulance Dispatch	149.890
West Vancouver	Fire F1	(R)159.390
White Rock	Fire	154.710
	or through Surrey FD	(R)154.310
	(which one? -ed)	
West Vancouver (oops)	Fire F2	158.970

I think I'll stop here and start next month with some civil defence frequencies and B.C. Provincial Government services. Until next month best wishes and if you have any info for the column please don't hesitate to send it in.

International

Richard Stein, Editor

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences and any other information relating to monitoring in countries other than the United States and Canada.

Send to: Richard Stein, 456 Barrymore Pl., North Brunswick, NJ 08902.

••••MONITOR LISTENING NOW LEGAL IN AUSTRALIA••••

From Arthur 001 AUST:

The Supreme Court recently upheld an appeal from a journalist of a conviction for listening to Police radio communications. The ruling was that although the Wireless Telegraphy Act of 1905 made it illegal to intercept a message, the defendant had not affected the contents or obstructed the passage of a message and had merely overheard a communication.

Scanners are readily available in Australia at approximately $100 above U.S. prices.

Frequencies of essential services in the State of Victoria (Capital City Melbourne) are as follows:

POLICE Call sign VKC

Channel 1	168.220	Northern Suburbs
2	168.340	Outer Sthn Suburbs
3	168.280	Country
4	168.160	Eastern Suburbs
5	168.400	Inner Sthn Suburbs

	6	168.190	Car to Car or Special Operations
	7	168.250	City
	8	168.310	Western Suburbs
	9	168.370	Country
UHF- Channel 10		460.550	as Channel 4 (mobile repeater)
		468.475	Portables (City)
		460.175	Country
		460.950	Country

STATE EMERGENCY SERVICE Call sign VZ3ES
Channel 1 468.600 (very good repeater network UHF-also H.F.)

MELBOURNE AND METROPOLITAN FIRE BRIGADE Call sign VKN 8
This covers a population of approx. 2½ million. 400 square miles.
Base and mobile repeaters

Channel	1	463.275	City/Central Suburbs
	2	463.225	North and West Suburbs
	3	463.150	South and East Suburbs

47 Stations. Approx. 175 appliances.

COUNTRY FIRE AUTHORITY
Covers Rural and Urban part of State (except Forest areas)

Channel	1	163.120	Channel	2	163.240	Channel 5	163.270
	6	163.300		7	163.330	8	163.030
	9	163.180		?	163.090	?	163.150

Service is broken up into 2 sections:

1: Urban 212 Brigades 6000 firefighting members
2: Rural 1250 Brigades 120,000 " "(rural population of 550,000)

Approx. 200 permanent paid officers and men.
Extreme Fire prone area. Temp. to 115° in Summer. Similar conditions to Southern California. Victoria ia 3% of area of Australia but has 50% of economic damage caused by fire.

VICTORIAN AMBULANCE SERVICE Call sign VL3RS
This is basically a Paramedic service and includes Mobile Intensive Care Ambulances (MICA), incorporating life support and mobile operating facilities.

Channel	1	76.300	Country
	2	76.425	Northern Suburbs
	3	76.250	Southern Suburbs
	4	76.487	Transport only

N.B. Channel 3 is the only channel used at night.

NEWSROOM TELEVISION CHANNEL 10 {is that GLV-10? ed.}

159.400

Thanx Arthur for a most interesting report.

••••SUBJECT: HEATH IM-2400••••

This next topic really belongs in the Technical Column, but I'm taking the liberty of placing it here. I have always been curious about Frequency Counters and their capabilities. I remember the days when we didn't have digital readout on our receivers. Trying to determine the frequency of a station received either locally or by skip was a matter of luck, guess work and long tables of graphs with complicated and sometimes exotic extrapolations. The problem was

accentuated by the fact that movement of eye position, even to the slightest degree, would alter the already subjective reading and thus muddle the "readout" even more.

Several times I thought about purchasing a frequency counter for my tunable Hi-Lo Lafayette radio. The problem however, was that attachments had to be made within the radio and I wasn't ready to attack printed circuit boards. Then along came digital readout and the problem of the radio was solved.

Now, I'll bet that each of you has come upon a situation where you saw a 2-way radio being used. You thought to yourself, 'wouldn't it be great to know the frequency they're using so I can run home and punch it into my set and listen'. Right? That's happened to me many times. The last time was just a couple of months ago. I read that a segment of the movie RAGTIME was being filmed at an old Victorian-style hotel on the beach. I decided to check it out and walked into the middle of the action on the hotel steps-lights, cameras and men with WT's. The radios had short antennas, either hi-VHF or UHF units. They were Motorola HT-220's but they had no frequency information on them. (I wasn't as lucky this time). Transmissions were easily audible in the street. I had my portable Hi=Lo radio with me and a BC-250 in the car about two blocks away. I spent a very frustrating 90 minutes trying to locate the frequency before they stopped shooting. I never did find them.

A few weeks ago I received a copy of the latest Heath catalogue and there on page 67 was their hand-held Frequency Counter. This portable unit covers the 50Hz. to 512 MHz. range and, as the ad goes, with optional swiveling antenna, can be used for counting WITH NO CONNECTIONS! Could I stand a few feet from a transmitting WT, point the counter towards the radio and get a reading? I had an idea, but still no real knowledge of how these things worked. So I wrote Heath. Here is their reply:

One of the many applications of a frequency counter is to determine the exact frequency of a transmitter. The IM-2400 is excellent for this application. The first rule when using a frequency counter for this purpose is to make the measurement without modulation. Modulation of any transmitter produces side bands. The side bands produce frequencies other than the carrier, which causes erroneous display.

To measure transmitter frequency, a frequency meter with a coupling antenna attached is moved to a spot near the transmitter where RF radiation is present. The transmitter is activated the proper distance (usually within a few yards of the source) is that which will produce a stable reading on the frequency meter. Closer coupling may produce too great a signal at the frequency counter input and result in erroneous readings from overloading or even damaging the instrument. Take care that the transmitter antenna does not come in direct contact with the frequency counter.

Our swiveling telescopic antenna provides significant sensitivity for measuring transmitter output. You can also extend or retract the telescoping sections for maximum sensitivity.

This looks very promising and may be the very thing I've been looking for. Well, until next month.... 73's

SATELLITES

EDITOR NEEDED!

We need a new Satellites column editor effective immediately. The editor of this column should be familiar with satellite systems and communications and should be an active satellite monitor. The editor also should have a knowledge of the history of older satellite systems and be familiar with upcoming new systems. This editor would be required to generate most of the copy for this column. If you are interested, please TYPE a letter telling about yourself and qualifications to RCMA Managing Editor, P.O. Box 216, Willow Grove, PA 19090.

UPDATE ON THE UPDATE

In the December, 1980, column entitled FLTSATCOM/AFSATCOM I though I had finally solved the great mystery and had gotten all the frequencies in the right place and all the satellites where they should be. Unfortunately these columns are prepared about 3 months in advance so by the time the December column hit the streets my great update on FLTSATCOM was already out of date.

My first problem began when the federal government decided to launch FLTSATCOM (F_4). This event took place on October 30, 1980, even though I had planned the launch for some time in 1981. According to all the information I had FLTSATCOM (F_4) was to have the same frequency pattern as the FLTSATCOM (F_2) at 23° west longitude. Based on this information I figured at least the frequency layouts were alright even if I had missed the launch date.

On November 13, 1980, I decided to check out the frequency plan with direct radio monitoring to verify once more what had just been printed in the December newsletter. As I cranked up my scope to examine the spectrum in question I discovered my second problem. Instead of two pips I now had three pips.

Since it was physically impossible for me to monitor the Indian Ocean Satellite I figured that the Federal Government had got me again. A closer examination of this 3rd satellite revealed that it was indeed the new Pacific West satellite. Unfortunately for me it was transmitting on what I had shown as the Indian Ocean frequency plan.

The only conclusion I can draw from this frequency change is that there must have been some concern that the orbital space (F_5) might not be approved. Since the first satellite launched was the one at 100° west it would be the first to fail. If this should occur then the entire central section of the United States would be without a satellite system. In order to fill this gap one of the remaining 3 satellites would have to be moved in to replace it. The most logical choice would be the Indian Ocean satellite. With this in mind I would suspect that the Indian Ocean satellite may be using the same frequency plan as the Pacific East satellite at 100° west. I would also speculate that if and when the fifth satellite is launched as an orbital spare it may also have this same frequency plan.

Regardless of the frequency plan for the Indian Ocean satellite and the orbital spare, the 3 satellites within range of the United States are not 100% verified. Both the Atlantic and Pacific East satellite are unchanged. The new Pacific West satellite is now using the Indian Ocean frequency format and the frequency format for the Indian Ocean satellite is not currently known. If one of the members has monitored the Indian Ocean satellite and knows the frequency plan please let me know.

After discovering these mistakes I also found that the Air Force downlink breakdown had also changed. The correct Air Force downlinks are as follows: Atlantic (244.045-244.110); Pacific East (243.945-244.020); Pacific West (244.145-244.210). The Indian Ocean breakdown is not verifiable at this time. While verifying these channels I also discovered a new set of data channels at 243.7275. These signals are east of my location and coming from a geostationary satellite. Can anyone tell me what satellite?

FLTSATCOM OBSERVATIONS

During the past few months I have noted with some interest a rather strange occurence. In my observations of the DOD portion of the FLTSATCOM satellites I have discovered that they are passing AM aircraft signals. Apparently this transponder is not limited exclusively to FM signals. I first discovered this while I was monitoring

FLTSATCOM F_1 at 100°W. During the evening hours I would get consistent air traffic control communications on 260.900 MHz. This traffic was coming from Moncton Center in Canada.

Recently I have been receiving traffic on 262.100 MHz from Ontario Approach Control in Ontario, California, and on 262.400 MHz from Fort Worth Center at Wichita Falls, Texas. I have also received traffic from the Homestead Air Force Base Tower in Florida. If this trend continues those RCMA monitors who like to listen to aircraft signals may want to buy a converter and use the FLTSATCOM satellites as a relay station. So far this AM aircraft traffic is the most exciting thing I've heard and it isn't even scrambled.

Seriously though, it appears that the Channel 23 transponders on FLTSATCOM satellites are somewhat broader than the 500 KHz they advertise. I would conclude that these strange signals are therefore not a part of the original design concept and are merely a mistake and not a part of some grand master plan. They do, however, make monitoring this frequency range a bit more bearable since you can actually hear a voice instead of a pulsating tone. I would not, however, recommend that you rush out and buy a converter for this range unless you have a lot of extra money to spend on a gamble. It's entirely possible that once the FLTSATCOM system is completely tested, these nuisance singals in the uplink passband may be relocated to new channels outside the affected range. If this occurs then you would be stuck with a converter which could be useless.

DEA AND SATELLITES

Many people have asked me if the Federal Drug Enforcement Administration (DEA) or any other Federal Enforcement Agencies are currently using satellites for two-way voice communications or for one-way tracking. As far as I know the answer is no. This is not to say that they have not conducted tests with satellites in the past.

In the May, 1977, issue of Communications News there are excerpts from a speech given by Mr. Jacob Parness of the Mitre Corporation. Mr. Parness' speech dealt with a joint test conducted by DEA and the Immigration and Naturalization Service using the ATS1 and ATS3 satellites. According to this article a DEA test vehicle was equipped with a special VHF radio for use with the two ATS satellites. Both position locating and voice communications were tested. The article states that high quality voice communications were established between a DEA mobile in Southern Arizona and a station in Washington D.C. These tests were conducted throughout the United States with excellent results.

This federal program along with similar ones in the Public Safety radio service are currently under consideration. The first step toward a direct mobile satellite system was taken at the recent WARC conference with the allocation of 800 MHz channels for direct mobile satellite operation. I would suspect that within the next 5 years we could see such a system in operation at least on a limited basis.

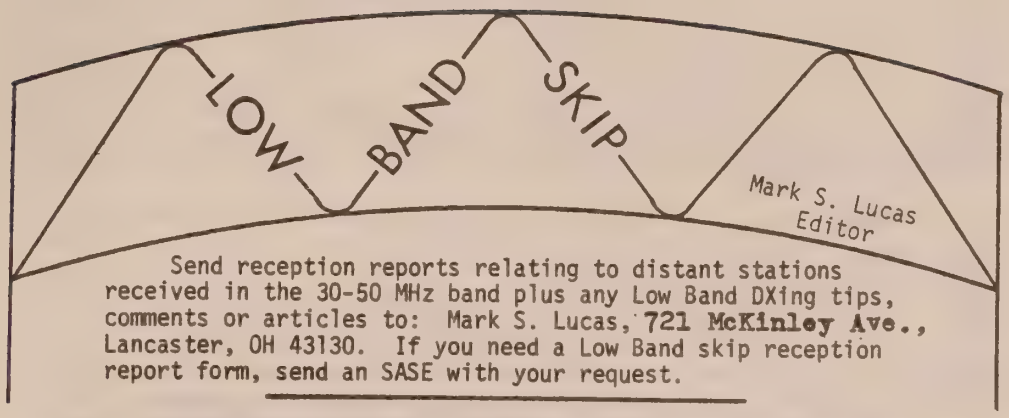
RADIO LOCATION EXPERIMENTS

Chris Devendorf (CA-ORO-050) sent me an August 9, 1980, article from the Los Angeles Times written by Mr. George Alexander. This article discussed a tracking experiment using a Nimbus weather satellite and of all things a turtle. Apparently NOAA scientists attached a tracking device to a 212 pound logghead turtle and set the animal loose in the Gulf of Mexico. While some problems were encountered the tracking method did work.

Another interesting program will begin in 1982. This program will involve a 15 month test of a new concept in search and rescue. This trial program will involve the placement of special transponder packages on board NOAA polar orbiting weather satellites. These transponders will receive 3 international distress frequencies 121.5 MHz, 243.0 MHz, and 406.0 MHz and will locate the source of the signal. The initial program will involve the United States, Canada, and France, and will be called SARSAT. SARSAT will stand for Satellite Aided Search and Rescue System.

MARISAT AIDS SHIP RESCUE

Chris also reports that during the recent high seas rescue of a burning cruise ship in the Gulf of Alaska, the MAYDAY signal was transmitted via the MARISAT Pacific Satellite. The initial distress call was picked up by a MARISAT ground station in California over a teletype circuit. A voice circuit was then established between the United States Coast Guard rescue center and the disabled ship through the MARISAT satellite. This enabled high quality communication during the rescue effort.



Send reception reports relating to distant stations received in the 30-50 MHz band plus any Low Band DXing tips, comments or articles to: Mark S. Lucas, 721 McKinley Ave., Lancaster, OH 43130. If you need a Low Band skip reception report form, send an SASE with your request.

Hello to 1981! The new year is here and let's hope plenty of low band skip to come. If not, so are the breaks! I am sure that there are some of you who are still hoarding your skip logs, or are keeping it to yourself. Send it in NOW!

From DAVE (No member number):" On October 26 at 1128 CDT on 30.635 I heard what sounded like southern accented voices talking about the Obaka River. I have been unable to find this river listed in any atlases. There were also references to 'wildcats out back' and to 'marshes'. The best I can come up with is this must be a game warden or DNR channel."
(Editor's Comments: The frequency listed is probably either 30.63 or 30.64 MHz.)

	From LOUIS (PA-024): 154.145 MHz	WRV 709	NO ID		FIRE
BASE	BC-210	9-14-80	0008 EDT	Location Unknown	(HELP!)
		154.145 MHz	WRV 654	NO ID	FIRE
BASE	BC-210	9-14-80	0056 EDT	Location Unknown	(HELP!)

From JIM (NJ-058):" In the October newsletter ANDY (GA-015) reported receiving a call 7-?7-80 on 33.86 MHz,1430 CDT, possibly as a 'fire' call for Ridgefield, CONN. As a North Arlington, N.J. fireman, I know there is a Ridgefield, N.J. FD on 33.86 MHz. Call is KBI 777. There are more than a dozen or more neighboring towns operating on 33.86 MHz."

	From BILL (MD-005): 39.10 MHz	KTL 617	"Transportation"		LGVT
B/M	BC-250	10-8-80	1100-1700 EDT	Coupeville, WASH.	2310 Miles
		154.235 MHz	KGB 476	"Radio"	FIRE
BASE	BC-250	10-8-80	1100-1300 EDT	Philadelphia,PA	110 Miles
		154.37 MHz	NO CALL	"Brooklyn"	FIRE
BASE	BC-250	10-8-80	1100-1300 EDT	Brooklyn,NY	200 Miles
		33.74 MHz	KTH 482	"Pinetop FD"	FIRE
BASE	Whammo 10	10-21-80	1510 EDT	Navajo Co.,AZ.	1800 Miles
		39.04 MHz	KBY 488	"Greenlee"	Sheriff
BASE	Whammo 10	10-21-80	1500-1700 EDT	Greenlee Co, AZ	1800 Miles
	From MARTIN (IL-125): 42.44/42.28 MHz	NO CALL	"36-s-3"		CHP
B/M	BC-300	11-10-80	0954 CDT	Redding,CA.	1791 Miles
		42.50 MHz	NO CALL	"35-30"	CHP
BASE	BC-300	11-10-80	1006 CDT	Chico,CA	1770 Miles
		42.44/42.28 MHz	NO CALL	"37-71"	CHP
B/M	BC-300	11-10-80	1007 CDT	Redding,CA	1791 Miles
		42.56 MHz	NO CALL	"18-72"	CHP
BASE	BC-300	11-10-80	1008 CDT	Ukiah,CA	1854 Miles
		42.44/42.76 MHz	NO CALL	"32-103"	CHP
B/M	BC-300	11-10-80	1010 CDT	San Fransico,CA	1847 Miles
		42.50 MHz	NO CALL	"98-41"	CHP
BASE	BC-300	11-10-80	1028 CDT	Los Angeles,CA	1727 Miles
		42.50/42.82 MHz	NO CALL	"69-851"	CHP
B/M	BC-300	11-10-80	1032 CDT	Bakersfield,CA	1727 Miles
		42.08/42.28 MHz	NO CALL	"34-d-6"	CHP
B/M	BC-300	11-10-80	1051 CDT	San Fransico,CA	1847 Miles
		42.08/42/28 MHz	NO CALL	"102-S-1"	CHP
B/M	BC-300	11-10-80	1051 CDT	Los Angeles,CA	1727 Miles
		42.46/42.70 MHz	NO CALL	"112-191"	CHP

B/M	BC-300	11-10-80	1104 CDT		Sacramento,CA	1777 Miles
		42.12/42.20 MHz		NO CALL	"96-D-7"	CHP
B/M	BC-300	11-10-80	1108 CDT		Oakland,CA	1818 Miles
		42.40/42.16 MHz		NO CALL	"31-90"	CHP
B/M	BC-300	11-10-80	1125 CDT		Ventura,CA	1763 Miles
		42.40/42.16 MHz		NO CALL	"22-1"	CHP
B/M	BC-300	11-10-80	1126 CDT		Santa Ana,CA	1818 Miles

Well, that's it for the first 1981 column. May all of you have a enjoyable year of scanning listening. And, NO! It is NOT too late to report! SEND IN NOW!!!!

Railroads

Ken Fitzgerald, Editor

Send information about railroad frequencies and their uses, radio system details, tips for monitoring railroads, explanations of railroad jargon and related information and questions to: Ken Fitzgerald, 121 East Hackberry, Enid, OK 73701.

I apologize for the briefness of this month's column, but as I write this in December, my job workload has been unusually heavy this holiday season.

Despite opposition from the Missouri-Kansas-Texas(KATY)railroad, the Saint Louis-San Francisco(Frisco)railroad was merged into the Burlington Northern railroad at 3:11 p.m. on November 21, 1980. The operational implementation of the merger began on December 1, 1980.

Burlington Northern locomotives and cabooses are equipped with a minimum of two channels: Channel one --- 161.100 Mhz, used as the systemwide road channel; and Channel two --- 161.160 Mhz, used by trains and switch engines to communicate in some major BN yards. Due to existing frequency assignments to other railroads, the BN could not extend the use of its road channel over ex-Frisco lines. As a result, BN channel 2 will be used as the primary or road channel on ex-Frisco trackage. All Frisco locomotives and cabooses have had their 161.130 Mhz crystals removed, and replaced with crystals for BN channels 1 and 2 so they can be used freely over the entire system. On original BN trackage, the radios will be used on channel 1, while on ex-Frisco trackage trains will use channel 2 for the road channel. Burlington Norhtern channel 1(161.100 Mhz)will not be used on the old Frisco, but train crews will probably learn quickly they can hold a "private" conversation between locomotive and caboose by switching over to channel 1.

In addition to locomotives and cabooses, mobile units and business cars which travel systemwide will be equipped for both channels, but base stations and mobile units which are confined to specific areas of operation will be equipped with the one frequency only which is used as the road channel in that area. For example, here in Enid which was served by the Frisco, the base station and all mobiles are now equipped with 161.160 Mhz as channel 1, even though it is channel 2 on the trains.

Since 161.160 Mhz was the output frequency for Frisco's mobile PBX's in Tulsa, Oklahoma; Springfield and Kansas City, Missouri; Birmingham, Alabama; and Memphis, Tennessee, its use for that purpose has been discontinued and the old road channel frequency-- 161.130 Mhz --substituted in its place. Mobiles will continue to access the mobile PBX repeater stations on 160.545 Mhz.

All other Frisco yard and switching channel assignments should remain the same under Burlington Northern. That's all for now, and please send in your contributions and questions. See you next month!

under 30 MHz

Chris Devendorf, Editor

Shortwave Utility

This column is for reporting RTTY, CW, MCW, SSB, AM and FAX reception reports, explanatory notes, articles and questions relating to frequencies below 30 MHz. Services covered in this column will be military, civilian aeronautical, coastal/maritime, SSB broadcast feeders, government, beacons, weather, voice markers, time/frequency stations, etc.--essentially everything except broadcast, CB and amateur radio. Send to: Chris Devendorf, 29261 Buckhaven, Laguna Niguel, CA 92677. If you need a Shortwave Utility report form, please enclose a SASE with your request.

INFO

The following list was sent in by Craig Thompson, CA-VE-11:

ALBROOK, Panama

SSB -	18019	1400-2400Z	8993	24H
	15015	1200-0200Z	6683	0000-1400Z
	11176	24H	5710	0200-1200Z

AM - 15015, 6730

"Capsule" broadcasts H+25 and H+55

ANDERSEN AFB, Guam

SSB -	18002	2200-0700Z	8967	24H
	13201	24H	6738	0700-2200Z
	11176	24H		

AM - 13215, 8967

Coded message broadcast H+00
"Capsule" broadcast H+25 and H+55

ANDREWS AFB, Maryland

SSB -	13247	1200-2400Z	6756	24H
	9018	24H	4721	0000-1200Z

ASCENSION ISLAND, Atlantic Ocean

SSB -	15015	0800-2000Z	8993	24H
	13244	1000-1800Z	6753	2000-0800Z
	11176	1800-1000Z	10780	Backup

"Capsule" broadcasts H+15 and H+45

CLARK FIELD, Philippines

SSB -	18002	2200-1200Z	11176	0900-2200Z
	13201	24H	8993	24H
	11226	2200-0900Z	6738	1200-2400Z

"Capsule" broadcasts H+25 and H+55, code H+02

CROUGHTON, England

SSB -	13201	0800-2100Z	6750	24H
	11176	24H	5703	2100-0800Z
	9011	0500-2300Z	3067	2300-0500Z

AM - 15036, 6757

"Capsule" broadcasts H+00 and H+30, code H+17

ELMENDORF AFB, Alaska

SSB - 13201 24H 8989 24H
11176 24H 6738 24H

AM - 11226, 5710

"Capsule" broadcasts H+15 and H+45, code H+30

HICKAM FIELD, Hawaii

SSB - 18002 1900-0400Z 8964 24H
13201 1700-0600Z 6738 0400-1900Z
11179 24H 3144 0600-1700Z

AM - 13215, 8967

"Capsule" broadcasts H+00 and H+30, code H+16

INCIRLIK, Turkey

SSB - 15015 24H 11176 24H
13215 24H 6738 24H

"Capsule" broadcasts H+10 and H+40, code H+31

LAJES FIELD, Portugal

SSB - 13215 1000-2100Z 6750 24H
11226 1000-2100Z 4746 2100-1000Z
8967 24H 3081 2100-1000Z

AM - 13215, 8967

"Capsule" broadcasts H+05 and H+35, code H+45

LORING AFB, Maine

SSB - 15015 1200-2200Z 9014 2200-1200Z
13201 1100-2100Z 4742 2100-1100Z

AM - 15015, 6730

MAC DILL AFB, Florida

SSB - 18019 24H 8993 24H
13244 24H 6750 24H
11246 24H 4746 24H

AM - 13210, 8967

"Capsule" broadcasts H+20 and H+50, code H+15

MC CLELLAN AFB, California

SSB - 18002 1600-0400Z 8989 24H
15031 1600-0400Z 6738 0400-1600Z
11239 24H 4746 0400-1600Z

"Capsule" broadcasts H+10 and H+40, code H+32

SCOTT AFB, Illinois

SSB - 15015 1400-0200Z 9014 24H
11182 24H 6727 0200-1400Z

THULE AB, Greenland

SSB - 13201 24H 6738 24H
8967 24H

AM - 11228, 5710

"Capsule" broadcasts H+15 and H+45, code H+01

YOKOTA AB, Japan

SSB - 18002 0000-0900Z

INTERCEPTS

Contributors this month are:

			(RTTY)
Bill Blomgren	IL-20	SSR-1	Info Tech 75
Mike Chabak	AZ-23	HQ-180	
Chris Devendorf	CA-OR-50	DR-33	Info Tech M-200E
Fred Osterman	KY-18	R4B	??
Al Ricciuto	NY-	DR-22	
Rickey Stein	NJ-1	FRG-7000	Info Tech M-200E
Leonard Stock	CO-25	FRG-7000	
Craig Thompson	CA-VE-11	51-S1	

Voice

2150	USB	11-12	0400	USS MAUNA KEA wkg SAN DIEGO	CT
2678	USB	11-15	0447	KEY WEST GROUP (USCG) wkg CGC WHITE SUMAC	CD
2980	AM	11-12	1900	Pacific coastal weather bcst	CT
3109	USB	11-1	0100	BEAKER BOY (USN) wkg SPARTAN (USS Lexington)	BB
4445	USB	11-21	0237	LARAMIE clg CHEYENNE (Wyoming??)	LS
4865a	USB	11-14	0300	VANCOUVER, p/p for Yukon & NWT	CT
5320	USB	11-22	0217	CGC SALVIA wkg COMSTA NEW ORLEANS	MC
5638	AM	11-28	1326	NANDI (Aero) wkg QUANTAS 11	MC
6683	LSB	10-31	0130	ANDREWS, Maryland wkg AIR FORCE 1 & SAM 26000	BB
6506.4	USB	11-18	1155	CGC POLAR STAR wkg COMSTA SAN FRANCISCO	MC
	USB	11-22	1252	CGC JARVIS wkg COMSTA KODIAK	MC
6715	LSB	11-3	1800	ANDREWS, Maryland wkg AIR FORCE 2 (at Pittsburgh)	BB
6730	LSB	11-4	0300	ANDREWS, Maryland wkg AIR FORCE 1 & SAM 26000	BB
6756	USB	10-24	2350	ANDREWS, Maryland wkg SAM 24197 with p/p	BB
	USB	10-25	0130	ANDREWS, Maryland wkg EXECUTIVE 1F (at St louis)	BB
6760	LSB	10-31	0155	ANDREWS, Maryland wkg SAM 27000 and SAM 26000	BB
6761	USB	11-10	0057	GOLIAD wkg GALE 48 (USAF-SAC)	AR
6990a	LSB	11-28	1441	58 MIKE wkg 58 MIKE ALFA DELTA	MC
6995	USB	11-28	1515	AGA8KJ Kwangju, S Korea wkg AFA6RI Anaheim with p/p	MC
	USB	11-29	1246	AGA8TA Taegu AB, S Korea wkg AGA8KU (USAF-MARS)	MC
	USB	11-29	1353	AGA8MS Mangil-San, S Korea wkg AGA8TA (USAF-MARS)	MC
	USB	11-29	1439	AGA8PS Palgong-San, S Korea wkg AFA6RI with p/p	MC
	USB	11-28	1511	AGA8OS Osan AB, S Korea wkg AFA6RI with p/p	MC
	USB	11-29	1520	AGA8KU Kunsan AB, S Korea wkg AFA6RI (USAF-MARS)	MC
7735	LSB	11-2	1600	ANDREWS, Maryland wkg AIR FORCE 2	BB
8055	LSB	11-4	0050	ANDREWS, Maryland wkg AIR FORCE 1 & SAM 26000	BB
8847	A3H	11-18	0502	BAHRAIN (Aero) wkg PY745	AR
8868	A3H	11-28	1335	SINGAPORE (Aero) wkg MAC 90012	MC
	A3H	11-28	1340	JAKARTA (Aero) wkg Singapore 212	MC
8903	USB	11-20	0600	OAKLAND RADIO, California	AR
8931	A3H	11-20	0622	HONOLULU (ARINC) wkg QUANTAS 4	AR
8984	USB	10-27	0243	COMSTA HONOLULU wkg AX130 w/ distress tfc	LS
	USB	11-15	0503	COMSTA KODIAK wkg CG 1501 (HC-130)	CD
	USB	11-22	0034	COMSTA KODIAK clg CG 1602 (HC-130)	CD
	USB	11-22	0035	COMSTA KODIAK wkg SITKA AIR (USCG)	CD
	USB	11-22	0052	(Unk station) coded message to YELLOWBLOOD	CD
8989	USB	11-20	0630	MAC DILL, Florida wkg MAC 50265	AR
8997	USB	11-24	1328	MAC CENTER, Antarctica wkg XD05	MC
9007	LSB	10-31	0340	ANDREWS, Maryland wkg AIR FORCE 1 & SAM 26000	BB
9011	USB	10-30	0055	LORING, Maine wkg VIEW 55 on gnd at Rochester, NY	BB
9018	USB	11-3	1630	ANDREWS, Maryland wkg UTAH 1E with p/p	BB
	USB	11-3	1647	ANDREWS, Maryland wkg EXEC 1F (at Stevens Point)	BB
	USB	11-20	0021	ANDREWS, Maryland wig MARINE 28427	CD
9023	USB	11-3	2250	DOMINO (USAF) p/p with CABOOSE	BB
9026	USB	10-25	1330	ANDREWS, Maryland wkg SPAR 60 (enroute Germany)	BB
9027	USB	11-13		COMMUNITY wkg AFFLUENCE (USAF-SAC)	AR
10523.6	USB	11-9	1401	HAMPYONG LORAN, S Korea wkg IWO JIMA LORAN	MC
	USB	11-28	1355	IWO JIMA LORAN wkg SAIPAN & YAKOTA MONITOR, r/c	MC
	USB	11-28	1401	SAIPAN MONITOR, Marianas wkg MARCUS LORAN	MC
	USB	11-9	1409	POHANG LORAN wkg HAMPYONG LORAN, S Korea	MC

SHORTWAVE UTILITY CONTINUED

11130	USB	11-26	1256	NAW34 AACR Guantanamo, Cuba, OM EE vm	MC
11180	LSB	10-31	0020	ANDREWS, Maryland wkg AIR FORCE 1 & SAM 26000	BB
	LSB	10-31	0115	SAM 26000 wkg AIR TAC (on gnd in Michigan)	BB
11201	USB	11-22	0032	CG 1489 wkg NORTH BEND AIR (USCG)	CD
11243	USB	11-12		DIALOGUE wkg DIPER 37 (USAF-SAC)	AR
11249	USB	10-27	0103	ANDREWS, Maryland wkg AIR FORCE 2 p/p to CROWN	LS
	USB	11-2	1520	CARDINAL wkg ELMENDORF, Alaska (USAF)	BB
11553	USB	11-10	0449	GOLF 1 clg FOXTROT 1	LS
12255	USB	11-9	1441	W8W wkg K9K net roll call with PST	LS
13107	USB	11-16		WOO Ocean Gate Radio, NY wkg IBQP Punta Stella	AR
13215	LSB	11-2	1600	ANDREWS, Maryland wkg AIR FORCE 2	BB
	LSB	11-3	1920	ANDREWS, Maryland wkg AIR FORCE 2 (at Flint, MI)	BB
13247	USB	10-24	2120	ANDREWS, Maryland wkg EXEC 1F (at St Louis)	BB
	USB	10-31	2220	ANDREWS, Maryland wkg SAM 12493 (enroute Dallas)	BB
	USB	11-3	1530	ANDREWS, Maryland wkg SAM 12493 with p/p	BB
13251	USB	11-10	1654	LIBERTY LADY, NAS Moffett Field wkg LINE MAINTENANCE	CD
15742	USB	11-19	0042	WAR EAGLE wkg PANAMA ALFA with personal p/p	CD
16531a	USB	11-19		PEYOTE wkg CGC KISHNER	AR
17261a	USB	11-11	1700	p/p between Birmingham, UK and Finland	CT
18623a	USB	11-11	2200	FORTUNATE wkg ARAPAHOE	CT
20198	LSB	11-3	1500	CAPE RADIO, Florida wkg unk station	BB
22602a	USB	11-14	1800	unk station with p/p	CT
22655a	USB	11-14	1800	unk station with p/p	CT

Morse

242	CW	11-19	0408	HWQ Beacon (Harrowton, Montana)	LS
	CW	11-19	0412	CUH Beacon (Cushing, Oklahoma)	LS
263	CW	11-19	0430	OGD Beacon (Ogden, Utah)	LS
	CW	11-19	0437	ER Beacon (Shein, Texas)	LS
290	CW	11-13	0225	BBW Beacon (Broken Bow, Nebraska)	LS
296	CW	11-13	0303	SP Beacon (Shawn, Texas)	LS
357	CW	10-29	0343	ODX Beacon (Ord, Nebraska)	LS
368	CW	11-14	0449	SIR Beacon (Sinclair, Wyoming)	LS
388	CW	11-13	0427	GLY Beacon (Golden Valley, Missouri)	LS
5430	CW	11-22	1332	BPV Time Station Shanghai, PRC (V/ID marker)	MC
6854a	CW	11-29	1335	"Q" Beacon (strong signal, 2 second repeats)	MC
6972a	CW	11-28	1432	TN6DVT, slow morse, continous repeat	MC
10176	CW	11-20	0440	"Q" Beacon (very stron, slow morse)	MC
13385	CW	11-10	0025	UGE2 Bellingshausen Base, Antactica wkg RUZU	FO

RTTY

6943a	100/170R	10-24	0250	Kavala, Greece (VOA) RY, QRA marker	RS
6997.5	60/850R	12-3	0114	WAR Washington, DC (Army) RY-Fox test	CD
7625	66/170	10-15	0135	HZN47 Jeddah, Saudi Arabia, wx code	RS
8102.5	66/425	10-24	0228	FYI or FTJ39A/H3 Paris, France (AFP) RY-QRA	RS
11638	66/425R	10-13	2030	DOK8 Quickborn, W Germany (DWD) wx and GG	RS
13487.5	66/425	10-13	2048	ISX35 Rome, Italy (ANSA) FF news	RS
13510	100/850R	10-13	2046	CFH Halifax, Canada (Mil) 5-digit wx	RS
13737	66/425R	10-13	2043	"HKNA" Nairobi, Kenya (Aero) RY tape backwards	RS
13850	66/425R	10-14	1425	4XA83 Tel Aviv, Israel (PTT?) telegrams to Moscow in EE FF RR and Hebrew	RS
13900a	66/425R	10-13	2039	Caracas, Venezuela (PL) SS news	RS
13975a	66/425	10-15	0153	CLP1 Havana, Cuba (EMBACUBA) 5-digit groups	RS
14458	66/850R	11-3	0230	ARA Karachi, Pakistan (Aero) RY-Fox Test	FO
14734a	66/425R	10-28	0308	(No ID) Prensa Latina, PP news	RS
14819a	66/850R	11-2	2318	LOK Orcadas del Sur, Antarctica, wx to LOL	FO
14833a	66/425R	10-28	0315	(No ID) Prensa Latina, PP news	RS
14857a	66/425R	10-8	0135	MKD Akrotiri, Cyprus (RAF) RY-Fox test	RS
14973a	66/425	10-28	0317	(No ID) Prensa Latina, SS news	RS
15518	66/425	10-28	0324	CLN482 Havana, Cuba (PTT?) testing with ITT, NY	RS
15830	66/425R	10-28	0320	(RUZU?) Molodezhnaya, Antarctica, 5 digit wx	RS
16383.4	66/170	10-26	1507	VNA30 Hanoi, VN (VNA) EE news	FO
18009a	66/425R	10-14	2005	(No ID) Cairo, Egypt (MFA) AA embassy tfc	RS
18089a	66/425	10-3	2053	5 digit groups, tfc in Czech??	RS
18093	66/425	10-8	0121	LRO84 Buenos Aires, Argentina, 5 digit wx	RS

SHORTWAVE UTILITY CONTINUED

18120	66/425	10-4	1150	MKG London, UK (RAF) RYI-fox test	RS
18248a	66/425	9-30	2038	YWW Venezuela, tfc in PP to PWZ	RS
18257a	66/425	10-7	1402	YWQ5/7/11 Caracas, Venezuela, RY-CQ test	RS
18276a	66/425	10-9	1427	(No ID) AA tfc	RS
18414a	66/425	10-4	1200	MKG London, UK (RAF) RYI-fox test	RS
18600	66/425	10-8	1258	RBN72 Moscow, USSR (PL) PP and FF tfc	RS
18771a	66/425R	10-8	0124	GYU Gibralter (RN) Fox test	RS
18817a	66/425	10-4	1629	(military?) 5 letter gps, FM U1B TO L1XH	RS
19021a	66/425	10-23	2307	Havana, Cuba (EMBACUBA) "Prensa Minirex" SS nx	RS
19086a	100/425	10-22	1302	(No ID) 5 digit gps, probably EMBACUBA	RS
19095a	75/425	10-20	1531	(MFA Indonesia) 5 letter gps & EE news	RS
19099a	75/425	10-20	1425	(MFA Indonesia) 5 letter gps	RS
19112a	66/425	10-4	1350	(MFA Indonesia) EE news	RS
19171.1	66/425R	10-22	1322	CNM85X11 Rabat, Morrocco (MAP) EE news	RS
19443	66/425	10-4	1305	Y7A77 Berlin, GDR (MFA) RY-QRA	RS
19480	66/425R	10-7	1431	XVF2 Hanoi, Veit Nam, telegrams in EE, FF	RS
19488	66/425	10-8	0131	ZLX31 Himatangi, NZ, 5 digit wx	RS
19532.5	100/425	10-11	2034	AEM1USA (US Army MARS) clg AAA3USA, AAR4USC	RS
19690	66/425R	10-7	1413	AXM37 Canberra, Australia, 5 digit wx & EE wx	RS
19758a	66/425	10-8	0128	6VY41/73/79 Dakar, Senegal (ASECNA) CQ tape	RS
19865.5	66/425	10-7	1411	YZJ4 Belgrade, Yugoslavia (TANJUG) SS news	RS
20023a	66/170R	10-8	1447	(No ID) poss Berlin MFA, 5 letter gps	RS
20066a	66/425	10-4	1620	(No ID) Cxechoslovakia (CETEKA) SS news	RS
20235	66/425	10-22	1355	(No ID) telegrams in EE then Oriental language on USB	RS
20081.4	66/425	10-22	1359	FTU8/H3 Paris, France (AFP) AA, dbl spaced	RS
20826	100/425R	10-22	1409	(No ID) Moscow, USSR (APN?) FF news	RS
21787.5	66/425	9-27	1201	9KT383 Huban, Kuwait (KUNA) AA YR test	RS
21810a	66/425	10-6	1443	(AFP) ss news, weak signal	RS
21884a	66/425	10-21	2133	CLP1 Havana, Cuba (EMBACUBA) testing	RS
22205	66/170	9-26	2025	LEPINSKAQ ISKRA (vessel) wkg Klaipeda Radio w. 3rd shift traffic	RS
22723a	66/425R	10-8	1230	Y7A58/Y7A83 Berlin, GDR (MFA) QRA-RY	RS
23371a	66/425	9-27	1207	HZN48/49/50 Jeddah, Saudi Arabia, RY-CQ	RS
40100	60/850	10-22	1830	NNNØLIY Calif. (USN-MARS) wkg NNNØPFQ	RS

FCC TOPICS

George DuBois, Editor

Send FCC news and information of interest that relates to two-way communications above 30 MHz and questions regarding the FCC Rules and Regulations to: George DuBois, 10048 NE Campaign, Portland, OR 97220.

The FCC has proposed allowing the use of 12.5 kHz offset channels for low power use in the UHF band. This was in response fo a petition by the American Petroleum Institute, which pointed out the need for additional channels in the Petroleum Radio Service for low power telemetry, remote control and communications at refineries, oil platforms, etc. In supporting comments, the Association of American Railroads foresaw use in railyards for remote control of locomotives. The Special Industrial Radio Service Association saw applications at construction sites and mines The Utilities Telecommunications Council cited use at powerplants and the Manufacturers Radio Frequency Advisory Committee stated these frequencies could be used for communications in factories and plant yards. In response to these comments, the Commission proposed allowing secondary, non-interference use of 12.5 kHz offsets by all of the Private Land Mobile Services. This will pretty much include the whole band from 451.0375 to 469.9625, except from 454.0125 to 456.0125, 459.0125 through 459.9875 and the General Mobile Radio Service (CB), but including the 453 and 460 mHz Public Safety channels. Maximum power would be two watts, or 10 watts ERP.

The Commission has issued a Final Order granting minor clarifications in the Special Industrial Radio Service at the request of the Special Industrial Radio Service Association. A footnote will be added in Part 90 to all frequencies in this

service which are not designated for either itinerant or permanent use, designating them as "general use", that is, for either permanent or itinerant use. This designation was dropped when Parts 89, 91 and 93 were combined into Part 90. Also, an applicant for itinerant use must state their area of operation in a specified radius from a particular point. Also, 152.465 and 157.725, which are shared with the Taxicab Radio Service, among others, will be designated for permanent use. Denied were requests to require a statement from a frequency advisory committee where interservice coordination is required, instead of a field survey, and "clarifications" of regulations regarding expired licenses, temporary location authorizations and fixed stations, which the Commission felt were unnecessary.

The FCC has released an alternative proposal regarding the allocation of channels for paging in the 929-931 mHz band. Basically, the original proposal was termed "too rigid". The new provisions would call for one mHz (40 channels) to be available to Common Carriers and one mHz to the Industrial services, but after five years the entire 80 channels would be available to either group of services. Also dumped would be the restrictions on message length and the reservation of a handfull of channels for tone only paging. All channels will be available for any type of paging, although two or three RCC channels would still be reserved for nationwide or regionwide paging service. The new proposal will also group the two one-mHz bands adjacent to one another, with the one-mHz reserve band on one side, to conserve spectrum if it's not required in this service.

The Commission has issued a Final Order eliminating the requirment that companies proposing service in the Domestic Public Land Mobile services submit proof of financial ability. They stated the RCC industry has had 30 years of development and was now a reliable low cost, low risk business venture.

The FCC has terminated procedings that proposed the mandatory use of directional, or downward-tilted antennas on Mt. Wilson, Mt. Lukens and Santiago Peak in Southern California, to reduce interference to the San Diego area. Also considered were the use of lower power and of 12.5 kHz offset channels in San Diego. Most comments were against the proposal, some stating that the antenna changes would do little to help, the use of lower power would impair coverage in the Los Angeles area, and the shift to 12.5 kHz offsets in San Diego would be prohibitively costly. Also pointed out was the fact that, conversely, stations in San Diego are, themselves, doing little to reduce interference in the Los Angeles area. It was universally suggested that closer frequency coordination efforts be used. Relative to this, The Commission will monitor selected channels in the VHF and UHF bands beginning in April, 1981 through July, 1982. This data will be correlated with meteorological data, to reflect tropo or "ducting" effects, to determine actual channel loading in the Southern California area.

The FCC has bound for hearing a petition by the ATS Mobile Telephone Co., of Omaha, Ne. ATS filed a petition in Dec., 1978 for issuance of a cease and desist order and revocation of license of General Communications Co., Inc. in the Business Radio Service. This was denied and subsequently reconsidered. It was then appealed to the US Court of Appeals for the District of Columbia, who remanded it back to the Commission. GCC sells and services one-way and two-way radio equipment and owns a station (KWW 288) for it's own two-way and paging use and to demonstrate equipment to customers. It also rents use of this facility to others, who operate under their own authorization, this sharing being allowed by the FCC. ATS maintains that GCC uses the facility for purposes which are essentially Common Carrier services, contrary to traditional Business Radio uses and is providing unregulated and unauthorized "psuedo RCC" services in competition to a legitimate RCC. The FCC Administrative Law Judge, who has the power to subpoena records and correspondence, will, among other things, examine the methods GCC uses to market radio equipment, the telephone interconnection arangement used for paging at the station, and the agreement between GCC and their customers concerning use of the facility.

Matters to be considered by the Commission in the near future (or the near past, by the time you read this) are the allocation of the 200 channels now being held in reserve in the 851-866 mHz band, and (finally), the proposal to reserve fifty 851 mHz channels for "slow-growth" systems, which typically would be a local government system which takes considerable time to study, finance, etc.

VHF Marine

Rod O'Connor, Editor

Send information, articles, frequencies and how they are used and questions that relate to private, commercial and Coast Guard VHF maritime and inland waterways radio communications to: Rod O'Connor, USCG Group, 259 High St., South Portland, Maine 04106.

GREAT LAKES MARINE OPERATORS

# on map	Service Area	VHF Channel
1	Duluth, Minn.	28
2	Copper Harbor, Mich.	26 & 85
3	Sault Ste. Marie Mich.	26
4	Sturgeon Bay, Wisc.	28
5	Port Washington, Minn.	26&28
6	Waukegan, Ill.	84
7	Chicago, Ill.	26 & 27
8	Portage, Ind.	28
9	Michigan City, Ind.	28
10	St. Joseph, Mich.	24
11	Saugatuck, Mich.	25
12	Muskegon Hts., Mich.	26
13	Charlevoix, Mich.	26
14	Rogers City, Mich.	26 & 28
15	Tawas City, Mich.	26
16	Bay City, Mich.	28
17	Port Huron, Mich.	25
18	Detroit, Mich.	26 & 28
19	Toledo, Ohio	25
20	Lorain, Ohio	26 & 28
21	Cleveland, Ohio	28
22	Erie, Pennsylvania	25
23	Buffalo, NY	26
24	Rochester, NY	25

Miscellaneous information -

No info received from any other members this past month, so here are a few locally used frequencies along the Maine Coast:

Portland, Maine Pilot Association uses VHF Channel 11, (156.55 mhz) for their main frequency.

Casco Bay Lines Ferry, Casco Bay, Portland, Maine area uses VHF Channel 10 (156.50 mhz) as their working channel.

State of Maine Ferry System uses Channel 19 VHF - (156.950 mhz.) to communicate with the State Ferry Vessels.

FEDERAL GOV'T and ☆ MILITARY ☆

Robert B. Grove, Editor

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to: Robert B. Grove, Route 1-Box 156, Brasstown, NC 28902. Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

As we begin a bright new year, we happily reflect upon the new consumer-directed receivers and accessories which are reaching a level never before known in the history of hobby radio listening. Not since the bygone era of Hammarlund, Hallicrafters and National have we seen such a bevy of receivers turned loose on the market. The major scanner manufacturers are also becoming prominent with their new releases.

This month I will try to answer some questions sent in by members. Fred (CT-034) read my simple solution to out-of-band programming the Regency scanners and hopes that a similar scheme exists for the Bearcat products. Unfortunately, it doesn't! Some of the early BC-250's and BC-220's could be programmed out of range, but later microprocessor changes have virtually eliminated that flexibility. There are two possibilities still remaining: programming the image of the out-of-band station (desired frequency + 21.6 MHz for Bearcat; desired frequency + 21.4 MHz for Radio Shack and Regency); the other possibility is the addition of an external frequency converter, consult the ads in ham magazines for companies like Hamtronics which specialize in frequency converters.

The recently-introduced Bearcat 160 has one trick which I learned while writing the manual for Electra. It can step-search from 30 MHz down to approximately 29.8 MHz by using the following program:

PRESS MANUAL
Open squelch to hear background hiss.
PRESS 30
PRESS LIMIT
PRESS SEARCH
PRESS ▽ STEP

Not very useful, but interesting!

Another interesting trick takes advantage of the crystal stability of programmable scanners. We'll use the Bearcats as an example. If you are looking for an accurate frequency source (signal generator) in the VHF or UHF range, a programmable scanner is hard to beat. The same oscillator radiation which causes "lock-up" when two or more scanners are operating simultaneously within close proximity of one another can be put to good use as an accurate frequency source. For example, when I need a stable reference signal at some frequency

(let's use 155.00 MHz), I merely enter a frequency into my scanner 10.8 MHz (the IF frequency) higher (165.8 MHz). The same scheme works well on UHF; if you need a 415.0 MHz signal marker, punch up 425.8 MHz on your Bearcat. On aircraft band you must subtract; for a 135 MHz marker you would program 124.2 MHz.

Regency and Radio Shack products have a 10.7 MHz IF, so that will be your offset when using those scanners for signal markers.

Many thanks to our fine members who contributed their personal frequency lists this month. We invite more of our readers to send in lists for next month; won't you help?

From our editor, CHUCK (PA-005) Ft. Indiantown Gap, PA Cuban refugee compound.

415.200 GSA Federal Protective Service repeater and simplex
412.875 Army MP's repeater output (407.275 input)
40.90 Muir AAF tower aircraft
139.000 Muir AAF tower aircraft

Nice catches, Chuck....thanks!

From DAVID (MA-008) Cherry Point, NC US Marine Corps Air Station

140.100 Crash crew
138.525 Fire department
45.70 SERE School (Survival, Evasion, Resistance, Escape)
140.250 Bogue Field crash crew and fire department
30.15 Bogue Field MP's
48.70 Bogue Field tower and base ops

Thanks for sharing, David..and good luck with your training!

From TOM (LA-003) Department of Energy (unless otherwise shown)

167.825 Repeater output (164.275 input) Strategic Petroleum Reserve Program KFW674 Weeks Island, LA
KFW696 Plaquemines, LA
KFW697 Metarie, LA
KFW701 West Hackberry, LA
KBW52 Metarie to Donaldsonville, LA
167.925 Repeater output (164.375 input)
KEY797 Gray, LA
KGI302 West Hackberry, LA
406.650 KKE26 Raw Water Intake, LA (So <u>that's</u> what RWWTRINT stands for!...ed)
416.600 KKE26 West Hackberry, LA back to Raw Water Intake

Both are wideband links carrying telemetry, data and full voice duplex.

413.025 KCB675 Department of Labor Job Corps Center, Shreveport, LA (repeater out)
408.025 Repeater input

Tom (and I) would like to know what the "FBI transponder non-voice" allocations on 32.75 and 41.97 MHz are used for; anyone have any ideas?

Tom also found out some interesting information regarding presidential protection. When the president is in New Orleans, a special telephone number to the fire department is activated. Two firefighters and one fire captain are assigned to the hotel floor with the president and are given 4 air tanks (one for the president). They are not to be concerned with anyone else in case of fire, regardless of danger! In case of fire, New Orleans Fire Department would respond with 5 engines, 3 ladder companies, a rescue squad, a flying squad, 2 district chiefs and a deputy chief...a total of 51 firefighters and officers!

Tom would be interested in member response to his suggestion that a special publication of sensitive frequencies be freely exchanged among veteran members who have contributed to the column, published and distributed at actual cost. Any replies to this suggestion?

Thanks, Tom for a newsy letter!

From SCOTT (GA-005) Dobbins Air Force Base Command Post

164.925 F1 (paired with 172.300)
172.300 F2
Unit designators: 100 14CC Command Able (Commanding General)
101 14CS Command Bravo (office)
102 14DWC Command Charlie (use unknown)

HT's include Touch-Tone pads for phone patch operation.
Thanks, Scott.

From CHUCK (IL-141) Forest Service except as noted

168.175 USDA Shawnee National Forest (fire guard aircraft as well as other ops.)
164.125 Golconda, Harrisberg, Elizabethtown, Vienna
164.825 Golconda, Harrisberg, Vienna, Bald Knob, Rosebud
168.175 Williams Hill, Herod
168.775 Bald Knob, southeast of Harrisberg
172.225 Jonesboro, Murphysboro
170.50 Elizabethtown, Vienna
163.175 TVA
163.4125 Army Corps of Engineers, Golconda (dredging) and Rend Lake (Requisition office)
163.5125 Army Corps of Engineers, Ohio River locks and dams
34.81 Fish and Wildlife, East St. Louise base station
34.83 Crab Orchard National Wildlife Refuge rangers
165.0875 US Army, Ft. Knox security

Thanks for the nice list, Chuck.

From LARRY (TN-014) Millington Naval Air Station

38.30 Disaster Control
138.600 Public Works repeater input
138.650 Housing
138.950 Hospital and ambulance
139.580 Naval Investigative Service
140.100 Crash crew
140.820 404th Construction Battalion
140.900 Housing maintenance
141.000 Public Works repeater output
142.500 F1 base security dispatch (gate guards, internal security patrol
142.550 F2 base security (Administration, investigation, special events)
142.850 Navy Exchange retail store
142.860 Recreation
143.275 NATTC Radio System
148.325 Hospital doctor paging
149.100 Fire department

Excellent list, Larry. Our thanks for your sharing it!

And in closing, this delightful item. The "Intercept of the Month" award surely goes to Fred Umlauf of Dover, Delaware. While listening recently to a mock air raid at a prominent Air Force base--bombs bursting in air, jet fighters streaking overhead--an excited voice was heard trying to get attention on the busy net. After the air was cleared to allow for the emergency, a voice was heard pleading, "Requesting permission to use the latrine!"

Commented Fred after he regained his composure, "There goes the war!".

See you next month!

For those of you who are interested in improving your listening potential, you may wish to send for the latest Grove Enterprises catalog now hot off the press. Many new items are being announced, including the "SCANVERTER' VHF/UHF scanner frequency extender, the "CODE BREAKER" advanced descrambler with built-in speaker and adjustable filter, a new scanner filter to remove interference from images, aircraft, signal overload, FM and TV broadcasters, a new shortwave/longwave antenna tuner and many other accessories and publications. For your free catalog, simply send your request to: Grove Enterprises, Dept. F, Brasstown, NC 28902.

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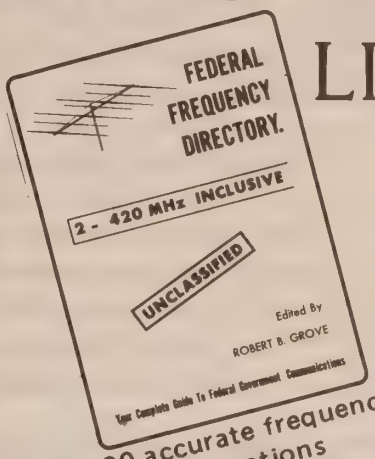

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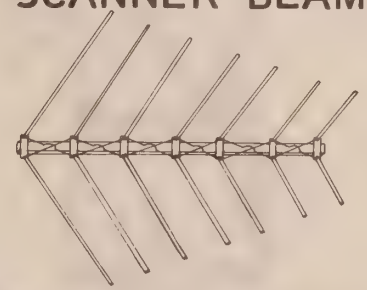

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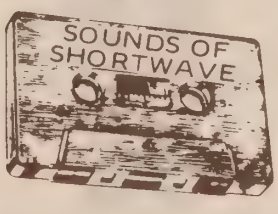

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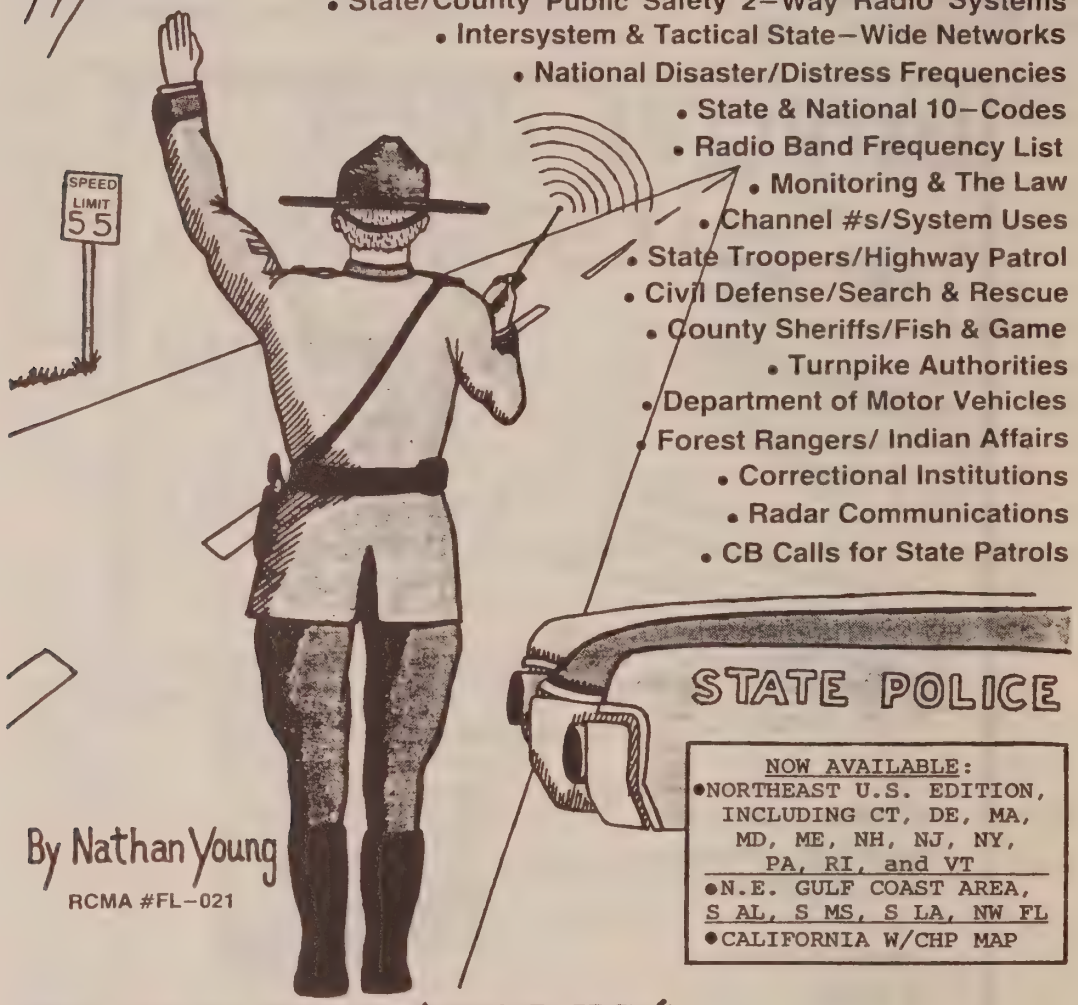

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RCMA #FL-021

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Public Safety

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PUBLIC SAFETY - EAST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia and West Virginia to: Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

PENNSYLVANIA

Before I begin, let me introduce myself. I am Louis A. Smith II, PA-026. I have been active in communications monitoring for about seven years, and have written a number of articles about the hobby for electronics periodicals. Over the years I have amassed quite a bit of detailed information about Pennsylvania statewide radio systems as well as local operations in the southwestern part of the state. Over the next several months I will be submitting much of this information to the newsletter via this column. Also, my first book will be appearing in stores in late 1980 or early '81. It is The Complete Action Guide to Scanners & Monitoring, TAB Books #1190, and contains just about everything you might want to know about two-way radio and communications monitoring in the VHF/UHF bands, including chapters on all radio services which a scanner can receive. Info on scanner specifications, scramblers, coding systems, frequency assignments, monitoring laws, and more are contained in this fact-filled guide. Members desiring more information are requested to send me an SASE at R.D.#6 Box 479, Latrobe, PA 15650. I will notify you upon publication. Now, on to my first system description, the Pennsylvania State Police (PSP).

This article is hardly complete. Additions, corrections, updates, and other input are encouraged and invited. Information on frequencies used by the PA Dept. of Justice and related agencies would be especially appreciated.

The Pennsylvania State Police radio system is comprised of approximately 80 base stations installed at barracks' and 2000 mobile units statewide. An unknwon number of Treasury Dept. and FBI mobile units also take part in the system, and at times can be heard communicating with regular PSP stations. A number of handheld transceivers (walkie talkies) are also used in conjunction with a mobile repeater system.

The current VHF-high band system has been in use for a number of years following the replacement of an out-dated low band system. The reason for the switch to the high band was the great amount of skip and other interference which was encountered with the former system.

The PSP operate on six paired frequencies in the 155 MHz range. The six frequencies constitute three semi-duplex channels which are used for base/mobile communications in various parts of the state. The channels are designated A, B, and C, and various channels are used by different troops. The reason for using three channels instead of one

wasto reduce interference resulting from too many base or mobile units occupying the same frequency pair. For example, all units communicating with Troop A barracks at Greensburg would operate on Channel A. This means that all units communicating with this stations would be transmitting on 155.790 MHz, while the base would answer on 155.580 MHz. The base receives the mobile transmitting frequency and vice versa. By using the semi-duplex configuration, all mobile units may hear only the transmissions made by the base, and not those of other cars.

Conversely, the base station may receive only those transmissions made by cars, and not those of another Troop A barracks also transmitting on Channel A.

Separate frequencies have been set aside for intercommunication purposes between base stations and mobile units. The statewide "Mobile-to-mobile" frequency is 154.755 MHz, and is available for use by all mobile units and base stations on a simplex basis. The channel is often referred to on the air as "M & M" or "car-to-car". All base-to-base transmissions take place on the only remaining low band frequency in the system, 42.60 MHz. This channel, which is only sparcely used today, employs a digital-dialing system between the various base stations. Communications on this channel (referred to as "Point-to-point") are somewhat unreliable due to the age of most of the equipment involved, and signal propagation, and most conversations between barracks' are conducted via telephone, or occasionally on the mobile-to-mobile frequency. The point-to-point channel is expected to be phased out over the next few years.

The M & M channel (154.755 MHz) is NOT a statewide law enforcement intersystem channel as is used in many states. Only PSP bases and mobiles are permitted to transmit on this frequency (the same is true for all the base/mobile channel frequencies used by the PSP system). PSP mobiles have no provision whereby they can communicate directly with local law enforcement units at the present time. The National Law Enforcement Emergency Channel (NLEEC, 155.475 MHz), which is currently used in a number of states for state/local/federal police radio coordination, is not yet in use by the PSP as a system plan is just in the development and planning stage. Some barracks' have the capability to communicate with local or county police by using separate transceivers, or by cross-monitoring. These radios are usually licensed to the local departments involved and are only in use in several areas of the state.

PSP mobile units are equipped with Motorola Micor two-way FM radios. Using a custom-designed control head model, any car may be used in any region of the state regardless of the base/mobile channel designated for that area. This is because the control head (mounted on the transmission hump of the vehicle) is equipped to transceive on any of the channels assigned for use by PSP mobiles (i.e., A, B, C, and M & M). A "Scan" feature is provided for simultaneous monitoring of any combination of the standard channels. In practice, a mobile unit patrolling in the vicinity of its home barracks will have the M & M and Scan channel selectors depressed on the receive console in addition to the particular base/mobile channel in use in the area. The radio control head also has controls for adjusting the receiver volume and squelch, a transmit channel selector, and a power-on indicator light. In the event the unit wishes to transmit in the simplex mode to another base station or mobile unit, the radio is switched to the M & M position on the transmit frequency selector. No change is made with the receive channel selector as simultaneous monitoring of the base/mobile duplex channel as well as the M & M frequency is usually desired.

In addition to the transmit/receive controls on the control head, a console is provided which allows the selection of several types of sirens, a public address system, as well as an external radio speaker provision which switches the audio from the receiver to a speaker located under the vehicle's hood.

Two types of mobile antennas are used. One is the roof-mounted variety, which is used on marked vehicles. This antenna consists of a ¼-wave whip (about 19"long) positioned in the center of the vehicle's roof. No

loading coil is necessary. The second type of antenna used is the disguise model found on unmarked and undercover units. This aerial is positioned in the location where an AM/FM auto radio antenna is usually found (on the right front fender), and is about 3½ feet long. It is meant to be mistaken for a conventional auto radio aerial, but as such is poorly designed because of its extreme length. An alternate position for the disguise antenna is on the left rear fender. The disguise model also does not use an external loading coil.

While it is not the official policy of the PSP to have cars equipped with CB radios (except Troop T turnpike cars), some officers take their own radios along when on patrol. Thus another antenna is found on units with CB radios. This antenna is usually a magnet mount or gutter-clip type.

Because there are several different models of base station consoles in use by the PSP, I won't go into detail on them except to say that virtually all are operated as remote bases. Under the remote base concept, the base transceiver and antenna are located miles away from the barracks at a remote site high above sea level. This is done so that the radio system can cover a vastly greater area than it would if the transceiver were located at the barracks location. Barracks' are linked with the remote sites via microwave or telephone lines.

According to the FCC Rules, base stations in the police radio service must transmit station identification at least once every 30 minutes during periods of continuous operation. This rule applies to all the barracks stations in the PSP system. The PSP have been experimenting with a taped voice ID being transmitted every 28 minutes or so from each base transmitter site. The messages contain the call sign and location of the station (e.g., "KXH375 Pennsylvania State Police Greensburg"). Some barracks', however, still rely on the conventional station ID. Therefore in some areas of the state the radio operator on duty will simply announce the station's call sign for ID purpose at irregular intervals.

All state police mobile units are covered under the single call sign KN9796. As a matter of practice, one mobile unit in each troop or barracks is generally assigned to transmit the call sign on the appropriate mobile-to-base frequency about every half hour.

On the M & M Channel the taped automatic ID with station name/call sign is employed in most regions. At times a mobile will be heard identifying with the KN9796 call. On the Point-to-point frequency, call signs are used at the end of a series of transmissions between two stations.

Other than to comply with FCC rules, call signs are rarely used for communications purposes. Rather, all mobile units are given an identifying unit number. The general rule is that each separate barracks will assign unit numbers between 1 and 30 to marked patrol vehicles. Unit numbers between 31 and 60 will be assigned to unmarked vehicles. Numbers above 60 are generally reserved for undercover units on special assignments, and are rarely used. Some recent examples have been the use of the number "76" for a radar patrol hidden inside a delivery truck, "80" for a semi-trailer weight enforcement patrol, and "500" for a mobile evidence collection van. Combinations of letters and numbers (i.e., WD3, DR1) are occasionally used for units on a special enforcement detail, and are of a temporary nature. It should be noted that at some barracks', the 1-30/31-60 relationship between marked/unmarked vehicles is reversed. The correlation stated in this article is true for PSP units at the Greensburg barracks, and similiar numbering sequences are used at other stations. To tell if the marked units are numbered high or low in your region, simply note the unit identifier found on several marked cars to see if they fall into the 1-30 or 31-60 category. The unmarked units are usually the other category.

All barracks' identify themselves by the name of the town/city in which they are located. This system was adopted a few years ago, and is a welcome change from the practice of assigning Troop ID numbers to base stations. Briefly, under the old system each barracks was assigned a single-digit number after the Troop letter. Thus, when the

barracks at Uniontown, for example, wanted to contact their car 51, the call went something like "B-4 to B-4 51". "B-4" was the unit designator for the Uniontown barracks, and all other bases had similiar ID's (e.g., A-1, F-3, N-2, etc.). This sometimes led to confusion as to which station was calling which car, and was subsequently discontinued. Today the same transmission between Uniontown barracks and car 51 would go "Uniontown to Uniontown 51" or simply "Uniontown-51". Evidence of the old numbering system, now used for adminisrative purposes, is still apparent as the barracks designators can still be seen on the roofs of marked patrol cars. The current one- or two-digit mobile designators are found on the trunk of all marked patrols. The barracks and mobile unit numbers are both found on the rear fenders of all marked patrols.

PSP communications are not usually codified. The ten code list reproduced elsewhere is the one currently in use for routine transmissions. As can be seen, no ten codes are used for specific types of incidents (e.g., robbery, shooting, etc.). Directions and descriptions are given in plain uncoded language. When information concerning a particularly important subject is to be discussed, the trooper in the mobile unit will be asked to give the barracks a 10-21, or to 10-25.

Occasionally, for the purpose of brevity, the PSP use abbreviations or variations of the published ten code. Some of the better known abbreviations are listed below:

Actor	suspect
ASAP	as soon as possible
CLEAN	Commonwealth Law Enforcement Assistance Network (Teletype/computer system)
"an 88"	same as 10-88
"live 88"	prisoner
"F"	fatal
NCIC	National Crime Information Center (computerized records)
OIC	Officer In Charge (at a particular barracks)
GOA	Gone On Arrival (unfounded call)
R & I	Records & Identification Division
set-up	radar trap
VIN	Vehicle Identification Number

In addition to the regular ten codes & abbreviations, transmissions will sometimes refer to an incident by using the number of a section of the State Crimes Code or Vehicle Code. This is only done on rare occasions, but because it is difficult for the average listener to obtain a copy of these "statute codes", a listing of the most commonly used citations appears elsewhere.

All PSP mobile units are equipped with a device known as a mobile repeater (extender). This unit is used to increase the operating range of the trooper's portable radio when he leaves the patrol car. Before leaving the car, the trooper informs his barracks that his unit will be "on repeater", and turns the transmit channel selector switch to the "R" position. This connects the regular two-way radio in the car to another transceiver (the repeater). The officer takes a portable two-way radio with him when leaving the car. This portable radio is designed to transmit with low-power on 159.210 MHz. All transmissions made by the portable are received by the repeater unit, and are relayed instantly to the regular radio transmitter for retransmission on the M & M Channel. When the barracks calls the car which is using the repeater, the base transmits on the M & M Channel which is received directly by the portable unit. Thus, the mobile repeater functions on portable-to-base transmissions to effectively increase the range of the portable, but does not retransmit messages from the base-to-portable as these are usually strong enough to be received directly. Conventional portable units used with the mobile repeaters are designed to transmit on 159.210 MHz and receive on 154.755 MHz. However, a number of these handheld transceivers are equipped with other channelization options including simplex capability on either 159.210 or 154.755 MHz. One or two other high band frequencies may also be found on some units.

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

Freq _____ Mode _____ Date _____ Time _____Z

Callsign _____ Agency _____

Location _____

Remarks:

Name & Member # _____

That's the low-down on state police communications in the Keystone State. While some listeners report hearing inversion-type scrambling tests on rare occasions, my sources indicate that the PSP radio system will remain essentially the same until at least the mid-1980's. The only probable change before then would be the addition of the NLEEC for statewide state/local intersystem purposes. My next article will concern radio operations on the PA Turnpike. Happy Monitoring! And remember to keep those additions, corrections, and updated info on PA statewide systems coming in.

NOTE TO PENNSYLVANIA READERS!!!

It has been reported that the frequency 45.30 MHz is currently in use by the PA Liquor Control Board, and that 154.950/154.905 MHz are being used by the state for Drug Control purposes. Also, the frequency 155.445 and 155.490 are being used by base & mobile units statewide for unknown purposes. All these frequencies are presently licensed for use by state law enforcement agencies, and any reception reports or info should be sent to Lou Smith II, PA-026, R.D.#6 Box 479, Latrobe, PA 15650 to assist in the preparation on an upcoming article. Thank You!

PENNSYLVANIA STATE POLICE FREQUENCY ALLOCATION PLAN

Base/mobile semi-duplex frequencies:

Channel A	155.580 base/155.790 mobile	(Troops A, E, F, J, M, R)
Channel B	155.670 base/155.910 mobile	(Troops B, C, H, K, N, P)
Channel C	155.505 base/155.850 mobile	(Troops D, G, L)

Statewide simplex channels:

Mobile-to-mobile (M & M)	154.755
Point-to-point	42.60

Mobile repeater input: 159.210

Troop A (Channel A)	
Greensburg (Westmoreland)	KXH375
Ebensburg (Cambria)	KXH376
Indiana (Indiana)	KXH377
Kiski Valley (Westmoreland)	KXH378
Somerset (Somerset)	KXH379
Troop B (Channel B)	
Carnegie(Allegheny)	KSO710
Washington (Washington)	KXO901
Belle Vernon (Fayette)	KXH380
Uniontown (Fayette)	KXH381
Waynesburg (Greene)	KXH382
Pittsburgh (Alleghney)	KXH383
Troop C (Channel B)	
Clearfiedl (Clearfield)	KXH362
Du Bois (Clearfield)	KXH363
Punxsutawney (Jefferson)	KXH363
Kane (McKean)	KXH364
Shippinville (Clarion)	KXH366
Tionesta (Forest)	KXH367
Troop D (Channel C)	
Butler (Butler)	KXH384
Beaver Falls (Beaver)	KXH385
Mercer (Mercer)	KXH386
Kittanning (Armstrong)	KXH390
New Castle (Lawrence)	KZC686
Troop E (Channel A)	
Coudersport (Potter)	KXH368
Emporium (Cameron)	KXH370
Lock Haven (Clinton)	KXH371
Mansfield (Tioga)	KXH372
Shamokin (Northumberland)	KXH374
Selinsgrove (Snyder)	KDN495

Troop G (Channel C)	
Hollidaysburg (Blair)	KXH346
Bedford (Bedford)	KXH348
McConnellsburg (Fulton)	KXH352
Philipsburg (Clearfield)	KXH353
Lewistown (Mifflin)	KXM888
Rockview (Centre)	KXO906
Troop H (Channel B)	
Lykens (Dauphin)	KXH325
Harrisburg (Dauphin)	KXH345
Chambersburg (Franklin)	KXH355
Duncannon (Perry)	KXH356
Gettysburg (Adams)	KXH358
York (York)	KXM891
Carlisle (Cumberland)	KXU261
Troop J (Channel A)	
Lancaster (Lancaster)	KYG578
Embreeville (Chester)	KXH313
Ephrata (Lancaster)	KXH316
Avondale (Chester)	KXH317
Troop K (Channel B)	
Limerick (Montgomery)	KXH312
Philadelphia (Philadelphia)	KXH319
Troop L (Channel C)	
Reading (Berks)	KXH318
Hamburg (Berks)	KXH321
Jonestown (Lebanon)	KXH322
Frankville (Schuylkill)	KXH324
Pottsville (Schuylkill)	KXH325
Troop M (Channel A)	
Bethlehem (Northampton)	KXH326
Fogelsville (Lehigh)	KXH329

Montoursville (Lycoming)	KXO915	Trevose (Bucks)	KXH330
Milton (Union)	KXO920	Dublin (Bucks)	(unknown)

Troop N (Channel B)

Hazleton (Luzerne)	KXH331
Bloomsburg (Columbia)	KXH332
Swiftwater (Monroe)	KXH333
Lehighton (Carbon)	KXH334
Fernridge (Columbia)	KXO905

Troop P (Channel B)

Wyoming (Luzerne)	KXH336
Dushore (Sullivan)	KXH337
Shickshinny (Luzerne)	KXH338
Towanda (Bradford)	KXH339
Tunkhannock (Wyoming)	KXH340/341

Troop R (Channel A)

Scranton (Lackawanna)	KXH342
Dunmore (Lackawanna)	KXH342
Honesdale (Wayne)	KXH343
Lords Valley (Pike)	KXH344
Gibson (Susquehanna)	KXH345

Troop S
All interstate highway patrols,
various channels

Troop T
All turnpike patrols,
various channels and turnpike radio system.

PSP STATUTE CODES

601 or 601A	Driving without license
2501	Criminal homicide
2502	Murder
2701	Simple assault
2702	Aggravated assault
2705	Recklessly endangering another person
2706	Terroristic threats
2709	Harassment
2901	Kidnapping
3121	Rape
3125	Corruption of minors
3127	Indecent exposure
3301	Arson
3304	Criminal mischief
3502	Burglary
3503	Criminal trespass
3701	Robbery
3714	Reckless driving
3731	Drunk driving
3732	Homicide by vehicle
3926	Theft of services
4101	Forgery
4105	Bad checks
4905/4906	False reports to police or public safety agencies
4912	Impersonating a police officer
5501	Riot
5503	Disorderly conduct
5504	Harassment by communications
5505	Public drunkenness
5506	Loitering or prowling at night
5902	Prostitution
6308	Underage drinking

PENNSYLVANIA STATE POLICE TEN CODE LIST

10-1	Signal weak
10-2	Signal good
10-3	Stop transmitting
10-4	OK
10-5	Relay to...
10-6	Busy
10-7	Out of service
10-7 R	Out of service, at residence
10-7 permanent	Dead
10-8	In service
10-9	Repeat your message
10-10	Negative (No)
10-11	...On duty
10-12	Standby, stop
10-13	Existing conditions
10-14	Message information
10-15	Message delivered
10-16	Reply to message
10-17	En route
10-18	Urgent
10-19	In contact
10-20	Location
10-21	Call (station) by phone
10-21 I	Call (station) by phone, Immediately
10-22	Disregard
10-23	Arrived at scene
10-24	Assignment completed
10-25	Return to (station)
10-25 I	Return to (station), Immediately
10-26	Estimated time of arrival (ETA)
10-27	License/permit information
10-28	Ownership information
10-29	Records check
10-30	Danger, caution
10-31	Pick up
10-32	...Units needed, specify
10-34	Time check
10-37	Intoxicated person
10-40	Advise if...on station or available for call
10-42	Does not conform to regulations
10-43	Advise road & weather conditions
10-44	Stations involved acknowledge
10-45	Motor vehicle accident
10-46	Holding suspect---rush reply
10-47	Send ambulance
10-88	Package for...
10-89	...Is calling you
10-97	Radio check
10-99	Emergency at this station---all units copy---interfering stations standby
SIGNAL 33	Help me quick.

Next Month some very interesting data from Pittsburgh!

PUBLIC SAFETY - CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alabama, Arkansas, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Tennessee and Texas to: Mike Redman, P.O. Box 1177, St. Charles, MO 63301.

Send material and questions for Illinois, Indiana and Wisconsin to: John Arendt, 327 Boulder Hill Pass, Oswego, IL 60543.

Greetings! Welcome to the February edition of the PS-Central Column. And as the cold winds blow in the Northern and Central part of my region, I hope you have a warm chair by the fireside with that Programmable Monitor at your side. And while those cold winds are blowing and the snow is falling, it's not too early to begin thinking about the RCMA Midwest Spring Festival. This year, I'll hold it a bit later in the season, perhaps in June, and it will be held on a Saturday, here in St. Charles. The location has not been decided upon, nor has the exact date, but I hope to have more definite information in the March Newsletter, right here in the PS-Central Column, so be sure to watch for it. I have a considerable amount of material to present, so I'll begin without further delay. Many thanks to all of you for your cards, letters, and contributions which have made my column one of the best and most read by members across the nation. What better time than right now to send me a list of your local and favorite radio frequencies, call signs, channel numbers, unit numbers, district maps, etc. right on in to my PO Box, or to John Arendt, if you're in Illinois, Indiana, or Wisconsin. And off we go...

PS-Central Chapter Summary

If you live in one of the areas covered by one of these local chapters and haven't been to a meeting or in contact with one of the chapter organizers, WHY NOT? If you live in an area that's not included in our chapter summary, START A CHAPTER! If you need help with that, contact Ed Sirovy at the address below. If you're not sure if you are close to a chapter or need more information, write to me or Ed, and we'll try to help. You can't imagine the new friendships made just here in the Metropolitan Area Chapter fellowship. Everyone has something to share, and everyone comes away from a meeting enlightened and excited about the hobby. Don't be afraid that you're too new to the hobby or perhaps have nothing to share. We'll give you all the help and advice you may need, and again, everyone is welcome. Here again are the local chapters in the PS-Central area:

The Ohio Valley Chapter- contact Dave Nugent (IN-002), at 2542 Birk Ave., Jasper Indiana, or call him at 812-482-2352.

The Chicago Area Chapter- contact Ed Sirovy (IL-004), 311 So. Williams St., Westmont Illinois, 60559, or call 312-969-2856.

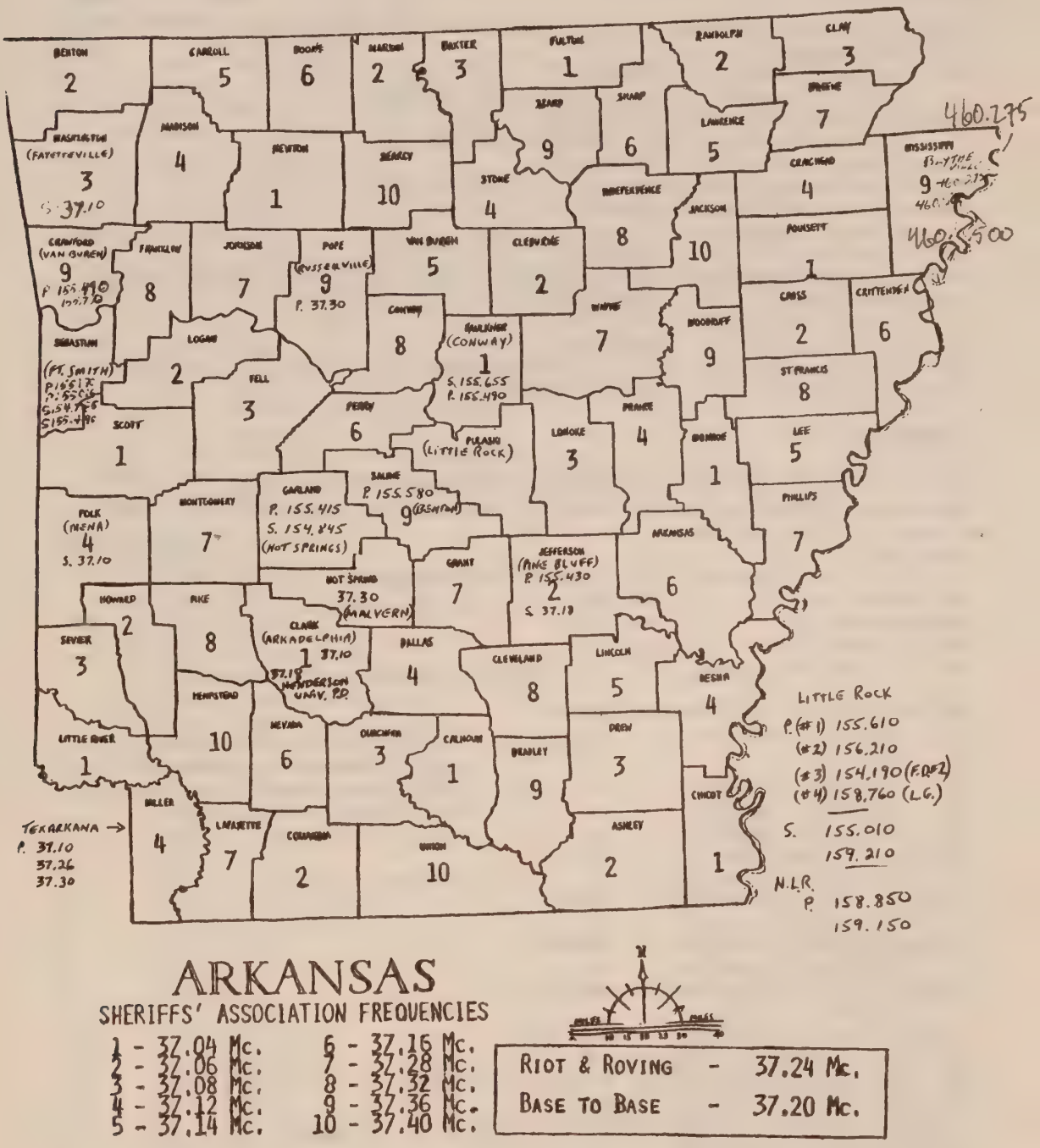
The St. Louis Area Chapter- contact me at the PO Box above or call 314-946-4331.

REMEMBER: You don't have to live in one of the cities mentioned- the Chicago Chapter goes 200 miles around Chicago, the St. Louis Chapter takes in all the counties surrounding St. Louis, and all the chapters welcome anyone from anywhere to their meetings.

ARKANSAS:

BILL (AR-001) was kind enough to pass on this map of information on County Sheriff's Radio in Arkansas. A 12 channel low band system is used, with 10 channels spaced throughout the state, one for base to base, and one base to base/mobile to mobile. Of these two, Bill advises 37.240 is the most active. Those County Sheriffs who have moved off of low band onto high band have their high band stations written in where applicable.

Bill notes that not all those new high band assignments are noted, just those he is aware of. Also, some counties that have high band assignments have retained the low band channel for other uses.



ARKANSAS

SHERIFFS' ASSOCIATION FREQUENCIES

1 - 37.04 Mc.	6 - 37.16 Mc.
2 - 37.06 Mc.	7 - 37.28 Mc.
3 - 37.08 Mc.	8 - 37.32 Mc.
4 - 37.12 Mc.	9 - 37.36 Mc.
5 - 37.14 Mc.	10 - 37.40 Mc.

RIOT & ROVING	-	37.24 Mc.
BASE TO BASE	-	37.20 Mc.

Many thanks, Bill, for that most interesting contribution. Larry Van Horn also provided some information on Arkansas, and here is the contribution of LARRY (TN-014):

Crittenden County Sheriff: (KZJ828)
F1 37.160 (Dispatch), F2 32.240 (Backup), F3 37.020 (Car to Car)
West Memphis PD: (KBT797)
F1 155.10 (Dispatch), F2 154.845 (Car to Car, Information)
Forrest City PD: KSL271 37.320
Osceola PD: KKH481 154.830
Blytheville PD: KZE710
F1 460.500 (Dispatch), F2 460.275 (Car to Car)

MISSISSIPPI:

LARRY (TN-014) provides this information for a portion of the State of Mississippi:
DeSota County Sheriff: (KKR487)
45.10 Dispatch, 45.34 Car to Car
Tunica County Sheriff: (KKC468)
45.42 Dispatch, 45.30 Car to Car
Tate County Sheriff: (KKR363)
F1 45.18 Dispatch, F2 45.30 Car to Car
Marshall County Sheriff: (KLA642)
45.14 Dispatch, 45.26 Car to Car
Horn Lake PD: (KWV820)
F1 155.310 Dispatch, F2 155.490 ? Use, F3 155.730 Car to Car
Coldwater PD: (KRO453)
45.460 Dispatch
Holly Springs PD: (KSU549)
F1 155.490 Dispatch, F2 155.700 ? Use, F3 155.730 Car to Car
Many thanks for that listing, Larry.

TENNESSEE:

And now LARRY (TN-014) continues with an excellent selection of Tennessee channels, aided with the additional information passed along by JOHN (TN-005):
Bartlett PD:
F1 154.725 Dispatch, F2 154.025 Information, car to car
Collierville PD: 460.050
Germantown PD: 460.100
Millington PD: (KIG726)
F1 37.260 Dispatch, F2 37.180 Information, car to car

Millington PD Unit Designators:

20	Chief of Police	25	Unmarked Detective Unit
21	Unused	26	Field Commander (Captain)
22	Traffic	27	Swing Car (traffic or patrol)
23	Traffic	28	Unmarked Detective Unit
24	Duty Patrol Unit	29	Duty Patrol Car

Tipton County Sheriff: KJJ936
460.375
Fayette County Sheriff: KIJ503
460.275
Haywood County Sheriff: KXM609
460.475
Lauderdale County Sheriff: KKV312
460.425
Gibson County Sheriff: 460.050
Lebanon, Newport, Dyersburg PD: 460.100
Mt. Pleasant, Union City, Bolivar, Hardeman County: 460.150
Weasley County Sheriff: 460.275
Crockett County & Loudon County Sheriff: 460.450
Lewisburg PD: 460.475
Shelby County Sheriff: KIB665
F1 155.250 Backup Dispatch, Information, Traffic Saturation
F2 155.790 Dispatch
F3 155.640 Administrative

453.775 Shelby County Emergency Services
F4 460.400 West Tennessee Mutual Aid

Fire Departments:

Shelby County Fire:
F1 154.175 Dispatch, F2 154.070 Fire Field
Millington Fire: KHF304
37.10
Bartlett Fire:
F1 154.340 Dispatch, F2 153.770 Fire Field
Germantown Fire:
F1 154.010 Dispatch, F2 154.310 Fire Field
Covington Fire: 154.145
Ripley Fire: 154.205

EMS: Shelby County
F1 155.340 Hospital to Ambulance, F2 155.205 Dispatch

Civil Defense: Shelby County
F1 155.895 KZJ932, F2 154.995 KZJ931
(F1 is used for local radio station traffic reports)

Shelby County Government:
155.295 Health Dept., 155.145 County Animal Wardens
151.115 Penal Farm 155.025 Airport Authority

Memphis Government:
155.715 Airport Security 453.150 Hospital Paging
453.225 Transit Authority 453.900 Building Inspectors
453.400 Transit Authority 453.250 Animal Control/Sanitation

The above was from Larry, that below from John:

Hamilton County:
154.085 & 155.940 Administrative
45.640, 453.650, & 158.835 Public Works
159.105 Building Maintenance
37.90 Rescue
33.08 & 154.085 Civil Defense
460.050 Police, West; 460.100 Police, East; 460.400 Mutual Aid
154.160 Fire

Chattanooga:
155.055 Schools
37.10 Humane Services
460.075 Police Administrative
460.225 SWAT
460.400 Mutual Aid
154.220 Fire
154.250 Fire Auxiliary
154.280 Fire Mutual Aid
155.220, 155.205, 155.340 Ambulance

Ambulance Codes for Chattanooga:

1	Airway Obstruction	41	Chemical Burn
2	Respiratory Arrest	42	Radiation Burn
3	Cardiac Arrest	43	Thermal Burn
6	Shock	44	Convulsions
7	Uncontrollable Hemmorhage	45	Epileptic Seizures
8	Internal Injuries	46	Diabetic
10	Gunshot Wound	47	Kidney Problem
11	Stab Wound	48	Mental Disturbance
12	Multiple Fractures	49	Nervous Condition
13	Head Cuts	50	Pneumonia
14	Body Cuts	51	Stroke
15	Extremity Cuts	52	Asthma
16	Head Injury	53	Appendicitis
17	Eye Injury	54	Insect Bite
18	Neck Injury	55	Snake Bite
19	Shoulder Injury	56	OB Miscarriage
20	Chest Injury	57	OB Labor
21	Back Injury	58	OB Delivered
22	Abdominal Injury	61	Unconscious
23	Pelvic Injury	62	Semi Conscious
25	Hip Injury	63	Chest Pain

26 Arm Amputation
27 Arm Injury
28 Arm Broken
29 Leg Amputation
30 Leg Injury
31 Leg Fracture
32 Controlled Hemmorhage
33 Bruises & Abrasions
36 Anaphylatic Shock
37 Heart Attack
38 Poison Ingested
39 Poison Inhaled
40 Drug Overdose
64 Dyspnea
65 Emphysema
66 Abdominal Pain
67 Sick
68 Drug Intoxication
69 Alcohol Intoxication
70 Unruly
71 Drowning
72 Organ Donor
73 Dead on Arrival
74 Rape
75 Suicide or Attempt Suicide
76 CPR in use
77 IV in use
78 Oxygen in use
79 Check up
80 Convalescent
82 Unknown

From reading all those codes, I think I'm 67, but before you become 61, read on, for here are the 10-codes used by the Chattanooga Area Emergency Medical Services:

10- 1 Receiving Poorly
10- 2 Receiving Well
10- 3 Stop Transmitting
10- 4 Acknowledgement
10- 5 Relay
10- 6 Busy
10- 7 Out of Service
10- 8 In Service
10- 9 Repeat
10-10 Out of Service--Subject to Call
10-11 Dispatching too Rapidly
10-12 Visitor Present
10-13 Advise Weather and Road Condition
10-14 Escort Required
10-15 Have Patient Present
10-16 Pick Up Patient
10-17 Disregard Previous Transmission
10-18 Departing on Assignment
10-19 Return to Point of Dispatch
10-20 Location
10-21 Call This Station by Telephone
10-22 Take No Futher Action
10-23 Standby
10-24 Trouble at Scene
10-25 Do You Have Contact with ____?
10-26 Vehicle Mechanical Problems
10-27 Arrived at _____ (Hospital)
10-28 Will Be Delayed with Patient
10-29 Did You Collect?
10-30 Enroute
10-31 Gassing Equipment
10-32 Stay on Radio
10-33 Enroute on Emergency
10-34 Clear the Frequency
10-35 Cancel Call
10-36 Correct Time
10-37 I have Emergency Traffic for You
10-38 I have Routine Traffic for You
10-39
10-40
10-41 Stay in Service
10-42 Change to Emergency Traffic
10-43 Investigate
10-51 Stabbing
10-52 Shooting
10-53
10-54
10-55
10-56
10-57
10-58 Public Drunkeness
10-59
10-60 Which Hospital?
10-61 Change to Hospital Frequency
10-62 Baroness Erlanger Hospital
10-63 Memorial Hospital
10-64 T. C. Thompsons Childrens Hosp.
10-65 Downtown General Hospital
10-66 Medical Park Hospital
10-67 East Ridge Community
10-68 Parkridge General
10-69 Diagnostic Hospital
10-70 Moccassin Bend Psychatric
10-71 Red Bank Community
10-72 Civil Disturbance
10-73 Train Wreck
10-74 Blood Run
10-75 Plane Crash
10-76 Bus Wreck
10-77
10-78
10-79
10-80 Fire
10-81
10-82
10-83
10-84
10-85
10-86
10-87
10-88
10-89 Request Radio Man
10-90
10-91
10-92 Your Quality Poor
10-93

PUBLIC SAFETY - CENTRAL CONTINUED

10-44	Meet Unit	10-94	
10-45	Auto Wreck--Property Damage	10-95	
10-46	Auto Wreck--with Injuries	10-96	
10-47	Send Another Unit	10-97	Arrived at Scene
10-48	Send Wrecker	10-98	Finished with Assignment
10-49	Send Police	10-99	Unable to Receive Your Signal
10-50			

Many thanks to Larry and John for those fine offerings.

TEXAS:

Irv Smith has answered an earlier request by Ken Pehl for Houston Texas radio channels. So here are the Houston channels from IRV (TX-022):

HOUSTON POLICE DEPARTMENT

Channel 1	460.325	N.W. Patrol
2	460.125	N.E. Patrol
3	460.025	S.E. Patrol
4	460.050	S.W. Patrol
5	460.425	Intelligence (license checks, etc)
6	460.100	Downtown Patrol
7	460.350	Detective & Park Police
8	460.225	Car-to-Car
10	460.450	SWAT
	453.900	Portable Command Post

HOUSTON AMBULANCE (Operated by Fire Dept)

Channel 6	460.525	Dispatch
1	154.16	Some units dispatched on this freq
	453.500	Ambulance-to-Physician

Ambulances are numbered 1100+Fire Station located at (e.g., 1108 is based at Station 8)
Ambulance Deputy Chief radio number 7
Ambulance District Chiefs are numbered in 1180's

LIFEFLIGHT HELICOPTERS
(Operated by Hermann Hospital)

	462.975	Dispatch
	155.340	HAHERN (Houston Area Hospital Emergency Radio Network)
Channel 3	154.950	Sheriff Car-to-Car

Contact with ground units frequently made with one of above frequencies

HOUSTON FIRE DEPARTMENT

Channel 1	154.16	Dispatch
7	460.550	Arson Investigators
8	460.575	Dispatch (simulcast with 154.16)
9	460.625	Tactical use at multi-alarm fire

Unit Numbers (Partial list):

1	Chief
2	Assistant Chief
5,6	Deputy Chiefs
100's	District Chiefs (Twenty Districts; e.g., 103 in Dist 3)
200's	Pumpers (e.g., 203 based in Station 3)
300's	Ladder Trucks
400's	Maintenance & Fuel Trucks
600's	Fire Prevention Inspectors
700's	Arson Investigators
900's	Airport Equipment
1100's	Ambulances
1300's	Communications Technicians
500's	Special Apparatus & Support Units:
	500 Salvage
	502 Communications Van (Responds to multi-alarm fires)
	509, 510 Air Cascade Bottle Trucks
	597, 598, 599 Fireboats
	576 Canteen
	508, 523, 562 Snorkels
	544, 49, 52, 54, 56, 61, 63, 66, 67 Brush trucks
	HM 1 Hazardous Materials Van
	Rescue 1, Rescue 20, etc Rescue Trucks

And without further delay, here's JOHN!

Greetings from the "Land of Lincoln". Now that winter is in full swing, the monitoring activities should also be in high gear. There's lots of material to cover, so I had better move on.

CHICAGO AREA RCMA CHAPTER NEWS. The regular meeting was held on Sept. 27 at Nancini's with approximately 30 members from the Chicago area, central Il., and southern Wi. in attendance. An honored guest was Jeff White, a representative from ANARC (Association of North American Radio Clubs). The following agenda items were discussed:

1. 1981 meeting dates were established for Feb. 7, April 11, June 7, August 8, Sept. 27, and Nov. 21 - all at Nancini's (Note that 2 of the dates are on Sundays).
2. A round-table discussion about the inclusion of SW in the RCMA Newsletter.
3. I gave summaries of my upcoming columns for Nov., Dec. and Jan.
4. Ed Sirovy's informative talk on Chicago PD operations.
5. Round-table questions and answers by those in attendance.
6. Satellite editor Bill Blomgren's tape and discussion of satellite reception.

The meeting was adjourned for dinner hour. Informal discussions followed.

RECENT DEATHS OF AREA MEMBERS

1. R.W. Erdman (IL-081), as reported by Scott (IL-054)
2. Bill Harris (IN-004), as reported by Dave (IN-002).

Bill previously contributed several technical articles to the Newsletter.

MORE AGENCIES ADAPT "PSAP" FREQ. 155.055 Your editor recently observed "Quadcomm" (centralized dispatch agency for Carpentersville, E. Dundee, W. Dundee, and Sleepy Hollow) in addition to Kane SD mobile units on this "911" channel.

CHICAGO F.D. NEWS Beginning Oct. 7, five disaster squads will be replacing the existing seven "flying" manpower squads. The new squads (each containing five specially-trained men) will be able to combat such "disaster" rescues from extra-alarm fires to toxic chemical spills. The suqads contain specialized eqpt. and new breathing apparatus made for long-term rescues where danger to the men's health is a possibility. From George (IL-115).

STRANGE LISTENING ON 453.825 Dick (IL-129) wrote and advised that the freq. was being used in Chicago to "provide emergency shelter for people and the like". Mike (IL-014) has advised that this freq. has been allocated to the Chicago Dept. of Human Resources.

COOK COUNTY S.D. FREQS. Brandt (IL-084) has sent in assignments as follows: 155.595 - Band 1, 155.535 - Band 2, 154.995 - Band 3, and 155.475 - Band 4 (NLEEF-ISPERN). The forest rangers now have 4 channel radios and are assigned as "400 units".

N.W. SUBURBAN FREQ. Brandt (IL-084) has passed on freqs. assignments for 2 municipalities:

Hoffman Estates	PD 155.430	KSJ646	Ch. 1
	PD 155.715	KJW601	Ch. 2
Rolling Meadows	PD 155.865	KTD308	(occ. scrambling)
	LG 155.940	KDU495	(public works)
	FD 154.205	KBZ953	Dispatch
	FD 154.265	KBZ953	Mutual Aid

OAKBROOK TERRACE P.D. can now be found on 154.115 with call letters KGL362. From Dick (IL-129).

QUAD CITIES AREA GET ELECTRONIC ALARMS Bill (IL-007) reports a new system called VARDA (Voice Alerting Radio Detection Alarm) now in use. The unit is portable, can be triggered by a variety of methods, and uses a radio transmitter to alert neighboring mobile units. A special tone is translated to a digital readout to advise alarm unit # (and subsequent location). Further units plus other means of electronic surveillance are planned. (Information summarized from a news clipping of the Quad City Times).

ROCK ISLAND P.D. TO RETAIN HIGH BAND Bill (IL-007) also advises that the old freq. 155.610 will be retained for detective and "youth officer" purposes. (The January column advised of a change to UHF for regular operations).

MERCER COUNTY S.D. RPTR. FREQ. Mike (IA-007) advises that the input freq. for the 155.625 rptr. is 156.030.

WISCONSIN HWY. DEPT. FREQ. CHANGE Bob (WI-001) states that the freq. info. published in previous editions of the Newsletter should be reversed. The rptr. output freq. is 151.040, with the input being 47.320.

With that WI contribution, this months "news and views" comes to a close. Next month should bring more changes in the Illinois State Police plus some lengthy contributions from WI. Don't forget the Chicago Area RCMA members' meeting at Nancini's on the 7th. A final thought - spring is just around the corner.

Happy Monitoring!

Yes, see you next month with another batch of frequencies, numbers, and general monitoring information, and don't forget to leave a place on your calendar for the Midwest Spring Festival, and the next local chapter meeting!

PUBLIC SAFETY - WEST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to: George Hoggatt, 17473 E. 16th Drive, Aurora, CO 80011.

Send material and questions for California to: Eric Christensen, P.O. Box 272, Seal Beach, CA 91108.

Well, it's Thanksgiving week to me, but you won't be reading this until the February 1981 issue. I hope that everyone had a good Christmas and a Happy New Year. I have always wondered why magazines took so long to print an article-now I know. I'm sure ours doesn't have nearly the problems of most of the big magazines as we have very little photography or graphics to get ready along with the text.

Here is some data from Kevin (OR-10) for the members in Northwest Oregon and Southwest Washington:

FREQUENCIES AND CHANNEL ASSIGNMENTS FOR SALEM AREA FIRE DEPARTMENT MEDIC UNITS (AMBULANCES):

Channel 1: 153.770 (F1) Channel 2: 154.160 (F2)
Channel 3: 154.385 (F5) Channel 4: 155.340 (HEARS)

MEDIC/RESCUE UNIT NUMBERING AND BASE STATIONS:

Medic 1, Medic 2, and Medic 4 are based at City of Salem fire stations 1, 2, and 4 respectively.
Medic 3 and Medic 5 are based at Marion County Fire District #1 fire stations #2 and #5 respectively.
Rescue 113 is based at Spring Valley Fire Department (Polk County.)
Rescue 353 is based at Keizer Fire Department, Keizer (Marion County.)**
**Temporarily out of service following MVA on July 4. Engine 357 replacing it until back in service.

Metro-West Ambulance in Washington County recently set up operations on 155.355 following the move of Washington County EMS providers to the UHF med system. Metro-West puts in a strong signal throughout northwest Oregon and southwest Washington. They are dispatching their own units as well as Tualatin Valley Ambulance units which were formerly on 155.235.

Meanwhile, Washington County Dispatch in Hillsboro serves as the medical control station for Washington County. They operate control link WGC979 for the dispatch and coordination repeater on 462.975. Other units sharing the repeater include Washington County Fire District #1 dispatch center; Tualatin Fire District dispatch center; Hillsboro, Tualatin district, and District #1 fire rescue units; Metro-West, Buck, Willamette Falls, and Vernonia Fire Department ambulances. Med channels are not assigned to a particular hospital but are variable depending on location (proximity to repeater sites) and prior occupancy of the channel. Med channels 2, 3, 5, 7, and 8 are used with Med 2 being the primary channel used. Tillamook County also utilizes the UHF med system although much less active than Washington County. These two counties were included in a federal grant coordinated through the Oregon State Health Division. OSHD has units with the UHF med system capability and can be heard on occasion. In the next year, Multnomah and Clackamas counties are scheduled to be converted to the UHF med system. Planning is underway to link the Washington, Clackamas, and Multnomah county systems together via microwave.

Additional EMS news of the area includes the demise of Superior Ambulance Service in Sheridan. Station KTV626 on 155.160 is apparently no longer used. Willamina Fire Department has taken over the ambulance service. Medical Services, Inc. of Eugene pulled out of Albany after having their exclusive franchise voided for poor quality service. Albany Fire Department has resumed ambulance service for that area. MSI continues to provide service in the eastern portion of Lane County pending their filing for bankruptcy. MSI operates Lane Med Net which can often be heard on 155.340 and 155.400 in addition to their 155.205 primary frequency. In addition, UHF links are used to relay weak signals via their Marys Peak satellite receiver.

Salem-area use of the 453 mHz LGS channels:

453.200	Oregon State Correctional Institution
453.225*	Oregon Department of Agriculture
453.325	Oregon Department of General Services
453.375	City of Salem Transit Department
453.450	City of Salem - - formerly fire dispatch repeater but soon to be used by meter maids and other public works programs to alleviate 158.940 overcrowding
453.600	City of Salem fire dispatch repeater
453.650	Oregon State School for the Deaf

453.800 Oregon State Penitentiary

*Shared with State Motor Pools and Oregon Liquor Control Commission. A new repeater has been installed on Prospect Hill south of Salem to provide better local reception. Previous repeater sites on Marys Peak and Mount Scott remain in use. All three are accessed with tone squelch.

Speaking of Southwest Washington, how about some stories about moniroting while Mt. St. Helens is having her temper tantrums? In September, Bill gave us a look at the satellite activity. The regualr two-way traffic must be terrific. Write about what you heard, saw and did, just keep in mind the restrictions of the Communications Act of 1934.

One source of information about State Police, is the official map published by or in cooperation with the State Highway Department or State Transportation Department. Here is a summary of the information for the Western States:

I don't have maps for Alaska, Hawaii and Oregon.

Montana, Nevada, Washington and Wyoming show nothing about the State Police.

Arizona: Highway Patrol Headquarters

Nogales
Tucson
Phoenix
Claypool
Holbrook
Kingman
Flagstaff
Yuma

Idaho State Police District Offices

Boise	384-3731
Coeur d'Alene	664-9276
Idaho Falls	522-5141
Lewiston	743-9546
Pocatello	237-1426
Twin Falls	733-7210

New Mexico State Police

District 1	Santa Fe	827-2551
District 2	Las Vegas	425-6771
District 3	Roswell	622-7200
District 4	Mesilla Park	524-8057
District 5	Albuquerque	842-3084
District 6	Gallup	863-9353
District 7	Espanola	753-2277
District 8	Alamogordo	437-1313
District 9	Clovis	763-2342
District 10	Farmington	325-7547
District 11	Socorro	835-0741

Colorado State Patrol Offices

Headquarters 4201 E. Arkansas Denver	757-9011
Emergencies	757-9475
District 1 Aurora 18500 E. Colfax	344-2536
Broomfield	469-1966
Burlington	346-8703
Castle Rock	688-3115
Limon	775-2354
Littleton	794-3499
District 2 Pueblo	544-2424
Colorado Springs	635-3581
La Junta	384-2562
Lamar	336-7403
Trinidad	846-2227
District 3 Greeley	353-1151
Ft. Lupton	857-6638
Ft. Collins	484-4020
Ft. Morgan	867-6844
Sterling	522-4693
District 4 Grand Junction	242-7447
Craig	824-6501
Eagle	328-6343
Glemwood Springs	945-6198
District 5 Durango	247-4722
Alamosa	589-2503
Cortez	565-8441
Montrose	249-4392
District 6 Golden	279-7923
Frisco	668-3133
Idaho Springs	567-4201
Hot Sulpher Springs	725-3393

Utah Highway Patrol

Brigham City	723-7614	Ogden	825-9758
Cedar City	586-9445	Price	637-0893
Coalville	359-0037	Provo-Orem	224-2441
Echo (Utah-Wyo border)	289-3122	Richfield	896-6471
Heber	650-2073	Salt Lake City	533-5621
Kanab	644-2478	St. George	673-9651
Logan	752-1110	Tooele	355-5860
Moab	259-5612	Vernal	789-3111
Monticello	587-2662	Wendover	665-2274

What's all this worth? I don't know. I find it interesting at least and if you are going to travel in one of these states you will have a ready made list of emergency phone numbers.

There are many sources of information such as this. In comming months I'll cover some of these as needed to fill out the column. Of course member contributions will always come first. If you like or don't like this, let me know. Until next time...

WELCOME TO THE FEBRUARY 1981 ISSUE OF RCMA PUBLIC SAFETY WEST-CALIFORNIA

You're not going to believe this, but I'm moving again!! This time, it's to Anaheim in inland Orange County. I have closed out my Seal Beach post office box, so PLEASE don't send any further correspondence to that address. My new address (effective immediately) is: ERIC (CA-LA-045), 3146 West Ball Road, Apartment # 35, Anaheim CA. 92804.

This month I will start an article on the Los Angeles City Fire Department's Radio System. This large fire department's dispatch system is quite different from its County counterpart, The Los Angeles County Fire Department. Whereas the LACoFD dispatches equipment ENTIRELY via radio, the LA City FD dispatches equipment via hard wire intercoms to each station. In addition to this, each station has a teleprinter which prints out calls. The only time that the LA City FD will dispatch a piece of equipment via radio is if the piece of equipment needed is away from its station.

The following information is represented from a brochure provided to me by the Los Angeles City Fire Department's Public Information Officer.

From ERIC (CA-LA-045): (Courtesy Los Angeles City Fire Department)

LOS ANGELES CITY FIRE DEPARTMENT - OPERATIONS CONTROL DIVISION

I. The Department ....

The Los Angeles City Fire Department is the largest on the West Coast. Over 2,700 personnel provide fire protection and rescue services to more than 2.8 million citizens throughout the 464 square miles of this metropolis. The varying topographical features and structural complexities in the City of Los Angeles are such that a wide degree of versatility must be maintained. For example, features include:

- Elevation ranges from sea level to 5,080 feet
- One-third of the City is steep mountainous terrain covered with highly flammable brush
- Two major airports
- A major shipping and receiving harbor
- Many refineries and industrial complexes
- More than 550 high-rise buildings (over 75 feet)
- Many high-density commercial districts
- Many high-value residential areas

The Fire Department operates 105 fire stations in 18 Battalions, and three Divisions. There are 45 task force groups (consisting of an aerial ladder truck and a 2-pumper engine company), 56 single-engine companies, 3 squads, 5 fire boats, 5 helicopters, 2 airport crash companies, 1 tractor company, and 46 ambulance units. Last year (fiscal 78/79), these companies responded to more than 238,000 incidents.

II. The Operations Control Division ("OCD") (Dispatch Center) ....

The Operations Control Division serves as the vital "first link" between the citizen and his emergency fire and ambulance services.

"I want to report a fire" or "I need an ambulance".

These words by a citizen begin a sequence of events that bring into play a multi-million dollar communication complex in the fifth level basement of City Hall East in downtown Los Angeles. Each year, approximately 1,000,000 telephone calls and 1,040,000 radio messages are processed by 17 Firefighter/Dispatchers, 3 Captains, and 1 Chief Officer staffing the complex 24 hours a day, 7 days a week. Fourteen operating radio channels with eight remote transceiver sites are used to communicate with the diverse units of fire suppression, rescue, and fire prevention forces in the different parts of the City.

In addition, numerous specialized radio channels are assigned to those with specific responsibilities, i.e., fire boats, helicopters, aircraft crash companies, and paramedic ambulances.

III. The new Computer-Assisted Dispatch System (CADS) ....

Dispatching functions were previously done at three different locations requiring considerable coordinating effort during major emergencies.

The manual system used placed great strain on personnel as assignment information could not be documented fast enough to keep up with operations. This resulted in non-reliable status information, especially during major disaster, such as the Bel-Air Fire.

Additionally, the City of Los Angeles, like other large urban centers, constantly faces the need to expand or upgrade fire protection and rescue services as population and construction increase.

After a lengthy study of the complex needs of the Los Angeles City Fire Department, a report was released which recommended completely modernizing the dispatch system, and listed three general objectives:

- Provide ready access for dispatch personnel to all necessary information. This includes such data as the exact location; the normal, pre-determined assignment; nearest available units; blocked streets; hydrants out of service; etc.
- Automatically maintain and provide access to current status and incident information for each unit and incident in the system.
- Upgrade communications facilities necessary for directing and controlling of field forces and equipment.

The present system is an attempt to meet these objectives. It is undergoing constant change, as any dynamic system must, in order to adapt to changing conditions.

Consolidation of the three older dispatch centers into the new center and full implementation of the Computer-Assisted "Fire Command and Control System" will give the Los Angeles City Fire Department the opportunity to acquire many improvements:

- Additional radio frequencies
- Upgrading of radio transmitting and receiving capabilities
- Digital communications system
- Computer-assisted dispatch system (CADS)
- Consolidated operations control, permitting more effective control of vital resources.
- Modernization of facilities and equipment

IV. How the Computer-Assisted Dispatch System works ....

Several sub-systems comprise the total Command and Control System. The "data processing" sub-system consists of the computers, associated peripheral devices, and the computer programs necessary to provide basic on-line command and control functions. In addition, it is linked to the City's Data Service Bureau computers to facilitate compilation of management information. Supplementing the computer storage is a "microfilm" sub-system which provides ready access to less frequently used, static information, such as detailed maps of the City.

The "communications" sub-system combines a private phone line system using teletype data terminals, radio and telephones with a complex switching matrix for fast access to all units, their personnel and equipment, no mater what their status.

The dispatcher and supervisor consoles provide the interface between Fire Department dispatching personnel and the controlling computers. Without leaving his position, each dispatcher or supervisor on duty has full control of a given situation as well as complete information describing the current status of all units and incidents.

So that every dispatcher and supervisor knows exactly what equipment at each location is available for immediate use, the "display" and the "mobile status entry" sub-systems combine to

present a visual representation in map form and tabulated chart form. Updates for the visually presented information are entered into the system via console or via radio via mobile status entry units in individual vehicles that input "enroute", "on scene", etc., messages (similar to Motorola's "MODAT" system.-Ed.)

All incoming calls from citizens are indicated on the telephone control panels at all dispatch consoles. Any available dispatcher may answer the call and enter the pertinent information (incident type and location, etc.) into the system via his CRT (Cathode Ray Tube) Terminal. The computer assigns a unique identifying number to the incident and searches a street index file for the reported location. In case of difficulty, the dispatcher can refer to microfilm displays for maps, alternate spellings, etc. The computer determines the nearest fire stations and available units and suggests an appropriate assignment for the type of incident. Next, the computer checks the incident status file for any other active incidents within 1,500 feet of the new incident and notifies the dispatcher of any coincident activity. Presented with this information, the dispatcher may elect to continue the dispatch, or modify the assignment to one required by pre-set policy. If the dispatcher then enters the "DISPATCH" command via his terminal, the computer will establish private-line connections with the appropriate stations, compose and transmit the dispatch teletype message to the fire station terminals, sound an alerting signal at the fire stations, turn on the night lights at the fire station if the call occurs at night, and finally connect the dispatcher's phone instrument with the public address system at the affected stations. The dispatcher may thus modify or add to the dispatch information given via teletype, and announce to all responding personnel any appropriate information.

The computer-assisted-system then updates all displays, files, and records automatically. Incident details and responding dispatch activities are recorded on magnetic tape as a history and can be used for future analysis for management information reports.

Editor's note: The Los Angeles City Fire Department is still experiencing difficulties with the Computer Assisted Dispatch System. As a result of apparent computer "software" failure, the Department is having to dispatch under the old system, which was basically the way they operated before the computer was installed. This still uses the hard-wire intercom and teletype systems for dispatching equipment.

From ERIC (CA-LA-045):

FIRE DEPARTMENT-City of Los Angeles "O.C.D." (Operations Control Division)
Radio Frequency Usage

Channel #	Frequency		Area	Usage
Freq. 1	506.3125	R	Division 1	Fireground
Freq. 2	506.5375	R	Division 2	Fireground
Freq. 3	506.9125	R	Division 3	Fireground
Freq. 4	507.1375	R	All	Ambulance
Freq. 5	506.6375	R	All	Brush fires, etc.
Freq. 6	507.0125	R	All	Miscellaneous
Freq. 7	33.70	BM	Dispatch-METRO	Dispatch
Freq. 8	33.82	BM	Dispatch-VALLEY	Dispatch
Freq. 9	33.90	BM		Not much use
Freq. 10	33.94	BM		Not much use
Freq. 11	33.60	BM		Command/Chiefs
Freq. 12	33.48	BM		Not much use
Freq. 13	33.52	BM		Not much use
Freq. 14	33.86	BM		Not much use

Note: Some Battalion Chiefs (BC) cars willhhave capabilities of operating on the State Fire "White" Net on 154.280 MHz. The Los Angeles County Fire Department along with numerous other fire departments utilize the "White Net" for mutual aid, especially on large fires. No Los Angeles City Fire Department vehicles (except for BC's) have radios on 154.280 MHz. Most L.A.Co.F.D. trucks have 154.280 MHz.

"O.C.D."

(fig. 1)

(fig. 2)

The above two photos show what the Los Angeles City Fire Dispatch Center "O.C.D." (Operations Control Division) looks like. Unfortunately, the large black status indicator boards with colored lights don't operate at the present time. They, along with the large multi-color map, were designed to indicate the current status for all fire equipment in the City of Los Angeles. Well, maybe some day they'll work!

From CRAIG (CA-VE-011):

Equipment definitions & Battalion Assignments-Los Angeles City Fire Department

A "Wagon" is a firefighting pumper manned by four men. It is always part of a two-piece engine company along with a "Pump". A "Pump" is only manned by one man, and is identical to the "Wagon" except for that. Together, they are called an "Engine". So, if Wagon 1 went on a car fire alone and left Pump 1 in quarters, its radio designation would be "Wagon 1". If Wagon 1 and Pump 1 went to a car fire, they're collective radio designation would be "Engine 1", and the dispatcher ("OCD") would know they are a high pressure engine. Back in horse drawn firefighting equipment (ended 1927) and before radios, they were called "Hose Wagons" and "Pumpers".

A "Truck" is an aerial ladder of 100' length, except for Trucks 63 and 105, which are 75'. It is manned by five or six men. A "Truck" is called the same when it is out alone. However, when Wagon 1, Pump 1, and Truck 1 respond together they are collectively called "Task Force 1". The term comes from the U.S. Navy's designation of a group of different types of ships brought together to accomplish one task, as made popular during WWII. As a final point of confusion, if Truck 1 and Pump 1 respond together without the Wagon, they are called "Light Force 1". A "Pump" alone is not considered a firefighting unit, and never is left alone in quarters or allowed to respond alone.

Trucks 37 and 38 carry heavy rescue equipment.

A "Squad" is manned by four men and responds to all greater alarm fires. Its primary function is salvage and ventilation.

A "Heavy Utility" is a heavy wrecker manned by two men. It is designed for heavy rescue work, carrying rotary saws, Hurst power tool, torches, and tools.

A "Salvage" is an unmanned squad which utilizes the manpower from the Engine in its station to become ready. Thus, a "Salvage" always responds with its own Engine, such as Engine 62 and Salvage 62.

Not all Rescues are paramedic, and are designated. All Rescues are staffed with EMT-1's, however.

A "Light Utility" is a portable power and lighting unit.

A "Tank" is pumper of 400-600 gallon capacity with a 500-1000 GPM pump. Some are four wheel drive.

Engines 13 and 30 carry 4" hose for heavy pumping operations. Normally 3½" hose is the largest two-piece companies carry. Single engines carry 2½". Note that single pumpers are called "Engines" in one piece stations.

A "Light Water" unit is a foam laying engine for flammable liquid fires. "Foam" units are for structures and ship holds where the fire is inaccessible.

Fireboats 1, 3, and 5 are small boats of 750GPM capacity. They are also equipped with divers. Fireboat 2 (12000 GPM) and Fireboat 4 (9000) are large fireboats.

The department operates six helicopters. "Fire 1" and "Fire 2" are large Bell 205's. "Fire 3" is a Bell 204. "Fire 4", "Fire 5", and "Fire 6" are Bell 206 'Jetrangers'. "Fire 6" has had the unfortunate luck of cutting its own tail section off on a warm-up, so will not be with us for a while. The department has just purchased Bell's latest, I think is called the 213. It has been rumored to being designated "Fire 6".

NOTE: Battalions 1, 2, and 3 are shown here. Battalions 4 through 18 will appear next month. Editor.

-Battalion 1 (Downtown)-

Station 3 219 S. Hill Street
Wagon 3 (50' Snorkel), Pump 3, Truck 3, Paramedic Rescue 3, Light Utility 3

Station 4 800 N. Main Street (Chinatown)
Wagon 4, Pump 4, Truck 4, Squad 4, Mobile Command Post, Command Post Utility, Bus 4

Station 9 430 E. 7th Street
Wagon 9 (50' Telesqurt), Pump 9, Truck 9, Rescue 9, Battalion 1

Station 10 1335 S. Olive Street
Wagon 10, Pump 10, Truck 10, Paramedic Rescue 10, Service Utilit

-Battalion 2 (Northeast Los Angeles)-

Station 1 2230 Pasadena Avenue (Lincoln Heights)
Wagon 1, Pump 1, Truck 1, Paramedic Rescue 1

Station 12 5921 N. Figueroa (Highland Park)
Wagon 12, Pump 12, Truck 12, Reserve Rescue 12

Station 42 2021 Colorado Blvd. (Eagle Rock)
Engine 42

Station 44 929 Cypress Avenue (Glassell Park)
Engine 44, Tank 44

Station 50 3036 Fletcher Drive
Wagon 50, Pump 50, Truck 50, Battalion 2

Station 55 4455 York Blvd.
Engine 55

Station 56 2838 Rowena Avenue
Engine 56

-Battalion 3-

Station 26 2009 S. Western Avenue
Wagon 26, Pump 26, Truck 26, Rescue 26

Station 34 3661 7th Avenue
Engine 34, Paramedic Rescue 34, Light Water 34, Battalion 3

Station 45 947 S. Norton Avenue
Engine 45

Station 54 5730 Crenshaw Blvd.
Engine 54, Salvage 54

Station 94 4470 Coliseum Street
Wagon 94, Pump 94, Truck 94

Aircraft

Maj. Ron Hammer, Editor

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to: Major Ron Hammer, 821 Elisa Way, Roseville, CA 95678.

It is a dark, rainy, windy night here in sunny California. That does happen, but at least it is not snowing and 50° below zero. With this weather my aircraft observations are somewhat curtailed. Like all pilots, when the weather is too bad to fly, you sit around and talk about it. That's safer anyway.

Before we get into anything else, I'd like to conclude my dissertation on how to decide who it is you regularly see flying through your piece of the sky. It helps to know in advance who it is you are looking for, where and when he will be there and what and when he will transmit to whom. Not that hard, really. From either your freebie Official Airline Guide (OAG) that we all have by now, or just a regular schedule you can often figure out who's where when.

Let's use a hypothetical example of my case, again. Say, from whatever schedule I use, I see that an East Texas Storm Door and Airline Company flight departs Seattle every day except Saturday at 8:02 AM and arrives Los Angeles International at 10:20. Now, other than having a clock and knowing if it is Saturday or not, the rest of the drill is a proportion or percentage problem. In my case, Roseville near Sacramento, here, is 569 nautical air miles south of Seattle and 281 north of L.A. Hence I live 569/850ths or 66.9% or 2/3rds of the distance between SEA and LAX. Now you don't need all that precision as airlines sure don't operate with much schedule precision. If I flop a ruler on any old map of the west coast and see that SEA and LAX measure nine inches apart and Sacramento is six inches down, I come out with the same approximation--2/3rds. Subtracting the departure time from the arrival time (and converting any time zone differences!) I come up with 2 hrs. 18 mins. flight time. So:

2+18 = 138 minutes X 2/3 (or .66) = 92 minutes or 1+32 hrs

One hour and 32 minutes after 8:02 AM or at 9:34 AM I race outside and point up to the sky and there he is! Well, maybe. First of all, he is probably late, but rarely early. They can't take off early and leave a bunch of passengers and to fly faster (discounting winds) uses more expensive fuel. Maybe, due to winds or weather he used another airway today. Maybe he is flying point-to-point, radar vectors, or is just shooting the breeze in the cockpit and is a "little" off course. (Surely that would never happen!) Perhaps the best bet is to fire up the ol' scanner (which is what this column is suppose to be all about) and LISTEN for him first.

Using the same proportion technique as above, say I determine that the boundary between Seattle Center airspace and Oakland Center airspace is maybe 3/5ths of the way down. Well, about an hour and 15 minutes or so after his scheduled departure I tune up the center sector frequencies for the sector (high, usually, if he is a jet) that he is most likely to enter. With the sophisticated radar of today his "position report" on radar hand-off is likely to be something like, "Good morning, Oakland, East Texas 499 is with you at 390." Well, now you know about where he is--or at least that he is coming! Now you race outside and look for him. The aforementioned binoculars (eight power maximum, and needn't be expensive ones) are a good aid. Being able to identify a contrail (if there is one) is a big help. The singular contrail left by the closely-spaced engines of a Boeing 727 should not be mistaken for the broad-band swath left by a passing eight-engine B-52. (As I've mentioned before, one of the things that sucked me into a career in aviation was watching the awesome 10-engine contrails of the B-36's droning over about eight miles up back in the early fifties. That drone would vibrate the window panes. To have been able

to have listened to them on a radio would have been a mind boggler, indeed. I could get KOMO Seattle on my Packard Bell 5-DA, but not B-36's. You guys who missed the era of the piston-engined airplanes--like with 28 cylinders per engine--missed a lot. The old Pratt & Whitney R-4360 piston now "gracing" my living room as an ash tray measures almost 6 inches across. I do digress.) Where was I? Yes, out looking up at the sky awaiting East Texas 499. Well, it doesn't work every time. With practice you'll get better at it. Get to know your Center's frequencies and sectors (from their free chart of same). Get to know what flights operate to and from where. I live in sort of a hole, but with my Winegard SM-2200 UHF/VHF non-sophisticated antenna I can often hear flights operating up in Oregon in Seattle's airspace, well East into Salt Lake's airspace and way down into L.A. Center's sectors in the south state. When I hear "...Center, Air California 133 out of 260 for 310..." or some such, it is kind of interesting to know that that is a fat little Boeing 737 out of say Orange County airport for San Francisco. I just get more interest out of knowing who's doing what than just listening to unidentified, clipped verbage spewing forth from my Bearcat 220. The O.A.G. lists every flight number in its area of coverage with major points of departure and destination.

Tom Kneitel, the aforementioned author of "Air Scan" (2nd Ed. $5.95 from CRB Research, P. O. Box 56, Commack, NY 11725) has finally been furnished a couple of courtesy copies of our newsletter (Oct. & Nov. '80 issues). I believe he may find it in his heart to re-evaluate our little "scanner club" and maybe even take out a trial membership. While I don't agree with Tom on a number of things, he is a widely read writer on radio subjects. It would be nice to have him on our side.

I heard from Bob Coburn (NH-003) in reference to the UHF aircraft band radios he is offering for sale (See Bob's ad in the November Newsletter, pg. 24--Robert A. Coburn, RFD-4, Tinkham Lane, Londonderry, NH 03053) These are not scanners, but surplus type government receivers. His Motorola weighs 50 Lbs and the Collins is a heavy one (motor freight only!) His ad doesn't say if they come with a belt hook. If you sincerely want to get into 225-400 MHz band, write for Bob's flyer. There are some fine surplus radios around. Most wives are not usually too thrilled to have some unit out of B-29 or a battleship gracing the family room bookshelf, however. The basic (original) quality is usually excellent. Maybe you could wall-paper over it.

I have a couple of letters here from Duane Peck (MS-09), who--as I write this--probably is not aware of being a major contributor to this column. Duane suggests I forego all of this baloney about airline schedules, etc. and get down to the basics--the functions of ground control, departure control, basic terminology, etc. Well, I don't really intend to, but will explain why. To wit: I have read every Aircraft Column ever written for this newsletter. My predecessors--most notably my immediate predecessor, Mark Holmes, did a very good job of expounding on terminology, basics, etc. Now, I realize that the Association is growing (by leaps and bounds) and there is a continuous stream of new members entering into aircraft monitoring. If every column were devoted to basics such as "...check wheels down, cleared to land runway 21 left" and what that means, I believe it would be of little interest to anyone but the newest neophyte. While many publications have a beginners forum of some kind, most endeavor to pass on into something a little broader for the regular readers. I believe it was in my first column that I mentioned the difficulty in gauging the sophistication of the bulk of the readership.

Duane, if you would like to write on basics of ATC, please do so and I will include some of it in the column. You, as an ATC instructor and current air traffic controller and pilot, are much more qualified than me to write on such. If the readership only wants frequencies obtainable by anyone for the price of a 10¢ postcard (to any ARTCC or "Center") and only terminology (available readily from the FAA--once again--ask for free pamphlet FAA-APA-PG-3 "Guide to Federal Aviation Administration Publications" U. S. Department of Transportation, Federal Aviation Administration, Publications Section, M-443.1, Washington, DC 20590), then you do not need anyone with any experience in any-

thing but copying things to "write" this column. I had hoped to add a little interest from my 6,000+ hours on the other end of the mike and some of the divergent or "spin-off" interests possible with an aviation-band capable radio.

I appreciate your suggestion and encourage you to contribute. In the meantime I would suggest the readership bug the RCMA officers to make available back issues or articles (like most other clubs do) so the new guy can catch up from word one. For example, on the back of some of the old Aircraft Columns that Chuck Gysi sent me were parts of articles on Satellites by Bill Blomgren. I knew zero about that subject, but was greatly interested. As a courtesy to a co-editor, Bill sent me all his back columns--which I gratefully read every word of. I would not, however, ask Bill to start all over and repeat the basics for me because I didn't join until last summer. Repetition, while usually a good form of learning, is also usually boring.

Due to the length of this column, what with Duane's work to follow, I will have to put off answering some of the mail, such as: John Breen (PA-066), a nice letter and a 51 page computer print-out of frequencies!; Jeff Weston (AR-010) Arkansas area freqes.; C. Scott Textor (GA-005), an informative letter on Atlanta's new Midfield Terminal "handheld" freqs (153.815/158.940 and 158.910/155.625); Alan Leder (NJ-???) who sends some NY freqs. Alan bemoans the lack of availability of back issues--he'd like to know more about my background. I'm sure all of those who read it in the October issue do not want to be drug through that again. I'll try to catch all of these in a few weeks. Meantime, Happy New Year and on to Duane's material: (Oops, almost overlooked a note from Richard Backlund (VT-003), also.)

ALBUQUERQUE CENTER

Alamogordo	132.65
Amarillo	135.425 134.75 120.85
Animas	133.0 127.95
Carlsbad	127.1
Childs Peak	135.15 132.45 126.45 125.25
Clines Corners	133.65 133.5
El Paso	134.45 127.1 126.0
Globe	133.85 124.5 135.15 132.35 125.4
Humboldt Mtn	132.9 128.45
Mesa Rice	135.05
Mount Dora	120.85
Raton	134.5 133.05
Roswell	133.8 132.65
Sandia Mtn	133.5
Seligman	127.45 126.9
Tucson	133.0 127.95
Tucumcari	135.7 133.55 125.6
West Mesa	133.65 124.7
Winslow	132.9 127.45 126.9
Zuni	135.8 134.6 125.2

BOSTON CENTER

Augusta	118.55
Barnstable	134.175 133.45 132.9 128.75 127.1
Bucks Harbor	133.25
Cambridge	133.85
Concord	134.3
East Burke	135.7 127.75
Gardner	119.85
Houlton	128.05 120.25
Lake George	135.7 134.85 133.625 126.35
Lyon Mtn	127.8 126.55
Melrose	134.75 127.65 120.35 119.25
MT Equinox	134.85
Pawling	132.65
Rockdale	134.55

Rome	134.7 132.75 127.8 121.25
St Albans	128.05 127.6 124.25
South Acton	134.95 134.225 128.2
Utica	127.9
Woodstock	133.85 132.65 123.95 121.35 118.05

ATLANTA CENTER

Albemarle	133.15
Athens	127.5 124.45
Atlanta	135.75
Austell	121.35 133.35 124.1 120.3 118.9
Birmingham	135.6 133.5 127.65
Black Jack Mtn	127.05
Chattanooga	134.8 134.05 132.675 121.2
Columbus	134.7 128.3 120.45
Crossville	128.65
Gadsden	133.8
Greensboro	132.75 128.8 123.8
Greenville	133.7 128.75
Hickory	135.875 134.55 125.15
Macon	135.35 135.1 133.1 123.95
Monroeville	118.55
Montgomery	134.6 132.85 126.4
Newport	135.15 132.8 127.55
Owing	128.2 127.15
Pine Level	132.25 120.55 118.55
Tri City	132.9 125.25 133.2

Chicago Center

Aurora	128.05 127.6 123.75
Bloomington	118.05
Bradford	133.95 127.95
Burlington	135.6
Cedar Rapids	132.8
Central Wisconsin	124.4
Chicago Heights	132.95
Danville	127.45
Wis. Dells	125.6
Des Moines	127.05
Des Plaines	133.2 127.75 120.35
Downers Grove	135.75 133.5 127.6
Dubuque	128.65 127.0 121.05 118.55
Ft. Wayne	132.15 119.85
Gary	133.7 133.1 127.8 125.2
Goshen	133.9 133.425 135.9 127.55
Green Bay	125.55
Hampshire	134.2 128.05 127.1 120.4
Grand Rapids	135.65 132.85 128.5 126.25
Horicon	135.55 132.75 127.5 121.35
Joliet	127.95
Jones	134.15 132.55 128.2
Madison	128.15
Milford	132.5 125.05 119.15
Milwaukee	134.75 132.3 125.1
Moline	118.75
Rockford	133.0 120.25
South Bend	135.35
Washington	134.325 133.35 127.25 121.4
White Cloud	120.85

CLEVELAND CENTER

Algonac	134.3 125.3
Belmont	135.175 125.1 120.4
Blue Knob	132.075 128.45 124.4 121.2
Brecksville	128.15
Carleton	135.65 133.525 120.95 119.95

Chardon	127.5
Detroit	128.35
Dunkirk	125.2
Findlay	133.8 127.9 120.8
Flint	135.725
Holland	133.95 127.45 119.15
Litchfield	134.65 126.75 120.45
Mansfield	132.25 119.8
Moon Twnship	133.075 126.95 123.75 120.6
Morgantown	124.6
Mt. Hope	133.375 124.35
Saginew	133.25 127.7
Sandusky	135.1 125.6
Warren	134.25 127.15 135.6 134.475 132.4 121.4
Waterford	132.4
Waterville	123.9
Wayland	133.75 128.25 125.55

DENVER CENTER

Akron	119.8
Alamosa	126.1
Aspen	128.5
Casper	135.6 134.65
Cheyenne	135.2 134.2 133.0 124.8
Colby	132.5 127.65
Crawford	133.875 127.2
Denver	133.75 132.85 128.65 128.2 126.5 125.95 124.1
Eastonville	125.8
Farmington	132.1 127.55 126.1
Gallup	132.1
Goodland	132.5 127.65
Grand Junction	135.65
Grand Island	132.7
Grand Mesa	135.65 133.6 132.15 128.5 127.8
Gunnison	133.6 127.8
Hanksville	127.8
Hayden	135.2 128.5
Hayes Center	135.5
La Junta	135.15 126.6 134.05
North Platte	135.5 134.65 134.4 133.5 133.3 128.2 127.65
O'Neill	132.7 133.875
Pueblo	133.15 127.3 126.6
Rapid City	134.65 127.2
Winslow	132.1 127.55 126.1
Ogaliala	134.4 132.7

"Company Frequencies"

Delta Airlines	131.95 131.9 Atlanta 129.55 131.85 New Orleans 131.45
Republic	131.75
Texas International	129.8 130.10
Braniff	130.55
Eastern	130.95 130.70
Continental	130.90
*National	131.25
Petroleum Helicopters Inc.	128.95

*National Airlines has been bought by Pan Am. The freq. may not be used now but changed to Pan Am's own frequency. Those areas once serviced by National will now hear the callsign "Clipper____." Thats Pan Am's callsign.

Technical Topics

Chuck Smith, Editor

Send all equipment reviews, technical articles, technical tips and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions or even computer applications for monitoring to: Chuck Smith, 4901 Heil Ave., #3C, Huntington Beach, CA 92649.

Well, I've been asking for editorial contributions from the membership, and this month my prayers have really been answered in the form of an excellent equipment review written by none other than the previous editor of the RCMA Newsletter, Iden Rogers. It is a well-written piece, as is customary with Iden's contributions, and therefore I have chosen to reproduce it intact in its entirety, and give you all a vacation from my usual diatribe, ha ha. I hope you find it as interesting and informative as I did.

A REVIEW OF THE SONY ICF-8650 RECEIVER

by Iden Rogers
Member ANARC DX Equipment Committee

The ICF-8650 is designed primarily as a portable receiver for reception of aeronautical communications in the VHF aircraft band of 118-136 MHz. It also receives the mediumwave band of 540-1600 KHz and the 88-108 MHz FM band.

The receiver was intended primarily to be used as a portable. It has a shoulder strap for carrying (detachable) and a solidly built, permanently installed, collapsible antenna. The receiver uses eight "D" cells for power and has no internal 120V AC power supply but does have provisions for external connection to 12V DC which can be either from a 12 V vehicular electrical system or a 120V AC-to-12V DC converter (not supplied). Sony offers a car battery cord and a converter as options. To help save battery power, the S-meter is illuminated only while depressing a spring return switch. Unfortunately, this switch must also be depressed to illuminate the S-meter when the set is obtaining its power from an external source. The digital frequency display has an off-on switch also to help conserve power. The S-meter serves additionally to indicate battery condition when the "BATT CHECK" button is pressed.

The receiver is attractive, solidly built, stable and generally easy to operate. It weighs 7 pounds 1 oz. which includes batteries. It is 10 1/8 inches wide, 8 1/2 inches from front to back and 3 1/4 inches thick. The audio is rated at one watt which seems to be quite sufficient. The receiver has a built-in speaker which provides nice clean sound. The audio quality on all three bands is good. This set also has an earphone jack and comes with an earphone which seems to work well. The output at the earphone jack is attenuated so that the volume does not have to be adjusted when going from the speaker to the earphone or vice versa. There is no provision for the connection of an external speaker and this seems consistent with the portable design theme. An external speaker can, however, be plugged into the earphone jack but two points in the circuit board must be jumped together to allow the full audio output to appear at the jack. An effective variable tone control is also provided and so is a tape recording jack. The set has an electronic digital frequency display with four digits and comes with an easy to understand instruction manual but no schematic or block diagrams. The specifications in the instruction manual do not include sensitivity or selectivity figures.

The mediumwave antenna is built in and with no provision for the attachment of an external antenna which really is not a disadvantage in this receiver. The FM and aircraft bands can use either the built-in, collapsible antenna or an external antenna. Connection to an external antenna is by way of screw terminals of all things. A Motorola-type plug would clearly have been a better choice. Sony blew that one! At any rate, an external antenna may be connected and this is an important feature for serious base station aircraft listening and for convenience while listening in a vehicle.

The following will be a closer look at the receiver's performance and idiosyncrasies on each band:

MEDIUMWAVE 540-1600 KHz

The mediumwave band apparently did not receive much design attention or funding in this receiver. It really is suitable only for entertainment listening and news and is clearly not suitable for serious DX listening.

The first point of irritation appeared when trying to tune in a station using the digital readout. The tuning is a little too quick (gear ratio too high) on this band and it is easy to over shoot a desired frequency. It takes careful tuning, sometimes back and forth to get the frequency right on. To compound this difficulty, there was about 13 degrees of tuning backlash until the source of the backlash problem was corrected. It was discovered that the tuning capacitor mounting screws were loose which permitted the entire capacitor to wobble around on the circuit board as the set was tuned. If this condition had been allowed to persist it would eventually have caused the connections to the capacitor to break. Contributing some to the tuning difficulty may be the fact that a dial cord system is employed wherein the cord is threaded around several pulleys. Sometimes when tuning in a station the set will tune itself an additional KHz after the tuning knob is released which no doubt is caused by the dial cord system "settling down".

Neither tuning the set by ear to center a station in the receiver's passband nor by tuning the set by S-meter indications produced readouts with a zero as a last digit. It was typically 2 KHz off. This problem was remedied by properly aligning the 455 KHz i.f. which the factory apparently failed to do.

The set did produce a few images 910 KHz below the "offending" stations' assigned frequencies.

Since many mediumwave DXers are acquainted with the Radio Shack TRF receiver (model no. 12-655, $29.95), it might be meaningful to note that the "TRF" is clearly superior to the Sony in terms of sensitivity, selectivity, image rejection and tuning ease. The TRF does use an analog frequency display which has less resolution.

FM BROADCAST 88-108 MHz

The FM broadcast band performance on the ICF-8650, like the AM broadcast band, appears to be geared more for the casual listener than for the serious radio hobbyist. For casual listening to music --- it's great! It is sensitive and sounds good but it is not what one would hope to expect considering the price.

It tunes as though it had AFC on all the time ---which is OK for the casual listener. When tuning across the band in a metropolitan area even with no external antenna connected, the receiver frequency jumps from station to station rather than having one station fade out and the next station fade in as the tuning knob is carefully turned. If one wants to listen to music on 105.9, it's a simple matter to dial up 105.9 and there it is. But, if one is tuning around trying to log the various stations (hobby listening/DXing as opposed to program content listening), it is often not immediately apparent what the frequency of a received station is as determined by the readout. This is especially so if the station is strong, which many are in a metropolitan area. Strong stations can often be received up to .2 MHz away from their assigned frequencies and the tuning meter is of little help because it reads maximum much of the time as one tunes across a strong station. The situation can be improved some by collapsing the built-in antenna to a point where signal strength is much lower and combining that with the knowledge that FM stations transmit only on odd 200 KHz assignments (e.g., 98.1, 98.3, 98.5, 98.7 and 98.9), the frequency can more readily be determined.

The factory alignment of the FM section was also poor. Stations could be received off center-more on one side than the other side of the assigned frequency. This problem was rectified by realignment.

It is interesting to note that the receiver can tune down to 75 MHz so as a result TV channel 5 or 6 can be received depending on which channel is active in a particular area.

The FM band performance on the ICF-8650 makes it quite suitable for use at a picnic or other social gathering but not for serious hobby listening/DX chasing.

AIRCRAFT 118-136 MHz

The receiver's performance on the aircraft band is certainly better than it is on the other two bands but as with all receivers it isn't without a few faults. Overall performance is not bad, in fact, in some respects it is very good. Also, one exciting, but hidden, ability of the receiver was discovered.

First, comments about the squelch, digital readout, preset channels, audio quality, S-meter, use of external antennas, selectivity and sensitivity.

The set has a nice squelch circuit. With no carrier present the squelch control can be set to any point from a fully squelched setting to a fully unsquelched setting. The ability to set a squelch part way between the two conditions facilitates the reception of weak signals by letting some noise through but without letting all the noise through. By contrast, the squelch on the Regency Digital Flight Scan is either fully squelched or fully unsquelched and "thumps" back and forth between the two conditions when receiving a weak signal with the squelch set near the threshold point. Unlike some receivers, the 8650 is dead quiet when squelched.

The digital readout has four digits, therefore the frequency of 125.5, for example, reads out as 125.5 which is great but the frequency of 119.65 reads out as 119.6 since there are only four digits. Tuning the set to a point mid way between where 119.6 and 119.7 are displayed will allow reception of 119.65, if the set is properly aligned. On one hand it's easy to find a particular station when the frequency is known but on the other hand when tuning around to discover "new stations" it is not always easy to determine the exact frequency of the new stations. For all practical purposes channel spacing in the 118-136 MHz band is every 50 KHz. The FCC has now broken the band into 25 KHz spacings but few of the newly allocated frequencies are in use at this time. Therefore, with the Sony, the frequency of a particular station/aircraft can almost always be tracked down to one of three 50 KHz channels, that is, the correct channel or the one on either side of the correct channel. It certainly would have been nice if the set had come with a five digit frequency display and a little better selectivity --- considering the price, it should have.

The frequency readout is hard to read in bright daylight but to have made it brighter would only wear down the batteries faster.

The receiver has three preset channels in addition to its regular tuning. The preset channels can be set simply by small front panel dials while watching the digital readout and each is selected by front panel push buttons. They seem to work reliably and surprisingly enough stay on frequency --- as long as the little dials are not disturbed. Their ability to stay on frequency may be partly attributed to the receiver's somewhat wide band width. The presets can be put to advantage in practical listening applications and are convenient and easy to use.

The audio quality of the Sony is excellent --- best ever --- and is approached only by the Regency Flight Scan (crystal). The Sony audio is not tailored for communications (that is, for intelligibility) and has full bass and treble. On the aircraft band, unlike shortwave, it does not appear to be a disadvantage and provides very clean, nice-sounding audio.

The S-meter works quite well and can be used successfully as a tuning indicator even on strong local stations unlike its response on the FM band. The meter and the way it responds is also quite suitable for determining the direction of maximum signal strength when the set is used with an outside rotatable directional antenna.

The communications part of the aircraft band extends from 118 to 136 MHz but there also exists a navigational part of the band from 108 to 118 MHz. By comparison, there is not much voice on the navagational part of the band but inclusion of this portion of the band would have been nice. Some navigational stations transmit continuous prerecorded aviation weather broadcasts and some serve as communications outlets for other uses. The aircraft communications listener's "station" is not really complete without this segment of the band.

Most receivers of any consequence have provisions for the attachment of an external antenna. Some receivers, particularly VHF/UHF scanners, cannot tolerate a good outside antenna that is mounted high and in the clear because the resulting signal levels exceed the receiver's limitations. Connecting a good outside antenna, especially in a metropolitan area, can cause the receiver to "receive" stations where they do not belong

on the "dial". On scanners that receive the aircraft band it is not uncommon for the two meter amateur band to pop up in the middle of the aircraft band or for FM music to appear or for aircraft signals from the other end of the band to show up. When the ICF-8650 is connected to a good ground plane antenna up about 35 feet practically no unwanted signals appear. Even better than that, when it is connected to a twelve element, log-periodic beam antenna designed to cover 108-152 MHz, mounted 50 feet in the air and pointed at metropolitan Los Angeles (from 50 miles away) few unwanted responses were observed!! This is worth noting and is a BIG plus for the 8650 as far as serious radio hobbyists are concerned. Connecting the same beam antenna to the Regency Digital Flight Scan, for example, produces nothing but "garbage" and renders the set unuseable unless the signals are first passed through some device for pre-selection such as a pair of tuned cavities. This is a hassle because the cavities must be tuned along with the receiver and overall sensitivity is reduced due to insertion loss of the cavities.

Realignment of the Sony improved the selectivity, sensitivity and readout accuracy on the aircraft band. It should be noted that the receiver's realignment was done by educated guess work by ear without the benefit of a diagram or test equipment. Possibly even better performance could be realized by use of the above mentioned aids.

The selectivity of the Sony is a little wide since adjacent channel interference is experienced from time to time but this does not present a serious problem most of the time. If the receiver had greater selectivity a lower tuning gear ratio would be required for easy tuning. As it is,the gear ratio is a little high --- but manageable.

The sensitivity of the ICF-8650 is "good". No test equipment was available to provide sensitivity figures so it was compared to a Regency Digital Flight Scan. Both sets were tuned to weak ground stations at various points in the band and the aforementioned ground plane antenna was switched back and forth between the sets. Before the 8650 was realigned the Regency was clearly more sensitive. After realignment both sets seem to be about equal. Comparisons could not be made on some weak stations where the Digital Flight Scan responded to out-of-band signals which interfered with reception of desired signals.

The ICF-8650 with the log-periodic beam connected can receive aircraft on the ground at Los Angeles International Airport from Riverside --- sixty miles away!!

Now comes the exciting "discovery". While nosing around inside the receiver, it was learned that even though the AM and FM bands are tuned by a variable capacitor, the aircraft band is tuned by a potentiometer (see Figure A). This means frequency on the aircraft band is controlled by varying the voltage applied to varactor diodes. I immediately disconnected the three wires going to the 100K aircraft band tuning pot (see Figure B) and connected a ten turn precision 100K pot and by way of three feet of wire (see Figure C) it tuned superbly and no adverse effects resulted from the excessive wire length. As the set is manufactured, each band is tuned from end to end by a little over four rotations of the tuning knob. By substituting this potentiometer it takes ten rotations to cover the aircraft band end to end which provides just the right amount of band spread. The tuning is silky smooth and with no dial backlash or "rubbery" feeling --- a great improvement. Persons who consider this modification should remember that the ten turn pot must be mounted outside the receiver cabinet since there is no room for it inside. Also, the MW and FM bands remain unaffected and are still tuned by the original tuning dial but the aircraft band is not.

That is only half of the discovery! With the new 100K pot connected the set tunes from 111.6 to 138.0 MHz. Resistance readings indicate the stock pot and the ten-turn pot have equal resistance. It is theorized that the 100K pot in the set would also cause the set to tune over this extended range but is somehow limited by the dial cord arrangement, no doubt intentionally.

By adding a 1.2 Meg resistor and a switch in parallel with the register (see Figure D), the tuning range can be extended even further. With the switch closed it covers 111.6 to 138.0, as previously mentioned, and with it open it covers 108.9 to 114 MHz. So now the set really does have full coverage of the aircraft band. Sensitivity seems reasonably good "all the way down" as confirmed by satisfactory reception of Ontario International Airport ILS "I-ONT" on 109.7 MHz and Pomona VORTAC "POM" on 110.4 MHz.

With the log-periodic beam connected some moderate to strong FM broadcast interference was experienced on some frequencies below about 115MHz which varied with antenna direction. Very little interference was present with the ground plane antenna.

The discoveries that the tuning range can be extended and that the aircraft band tuning can be significantly improved by substituting another potentiometer were both quite welcome.

Now comes the really bad news. The list price of the ICF-8650 is $459. The price seems excessively high and is probably more than most people will be willing to pay. I bought one on sale (Aug. 80) for $319.95 from Spectronics, Inc., 1009 Garfield St., Oak Park, IL 60304, (312) 848-6777. I expect that this was a one time offer only. Radio West, 3417 Purer Rd., Escondido, CA 92025, (714) 741-2891, has them for sale for $410 (Oct. 80), which may be on the average about as low as they will normally be priced but it does pay to shop around.

The Kenwood R-1000, a very good and well accepted general coverage receiver (200 KHz - 30 MHz), has nearly the same list price but sure seems to be a lot more receiver for the money. It sure makes a person wonder why the Sony ICF-8650 has to be so expensive.

Conclusion

The ICF-8650 is not suitable for serious hobby listening/DXing on the mediumwave and FM bands but would serve the casual listener well for receiving music and news.

On the aircraft band after realignment, after substitution of the tuning potentiometer, after extension of the frequency coverage and after fixing a bad solder joint on resistor R-21, the set seems suitable for serious hobby listening/DXing. The S-meter serves well as a tuning indicator and an indicator for rotating a directional antenna. The receiver experiences very little interference with a good outside antenna connected to it. The audio quality, squelch and sensitivity are good. The presetable channels work well and are useful. It should have had a five digit readout, better selectivity and a lower price. Quality control seemed somewhat poor. Even though I grumble about the receiver's bad points, it has found a permanent home in my radio listening console. I enjoy using it on the aircraft band.

My comments about the ICF-8650 result from exposure to only one such receiver and the performance of this sample may or may not be representative of other 8650's.

Fig. A Stock 100 K tuning pot as seen mounted in circuit board.

Fig. B The three wires shown unsoldered from terminals.

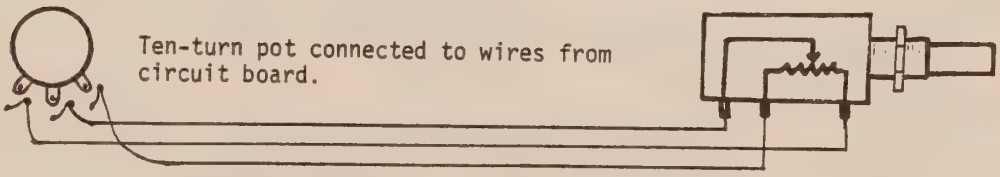
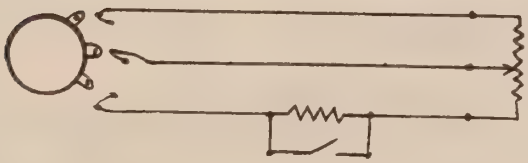
Fig. C  Ten-turn pot connected to wires from circuit board.

Fig. D  Addition of 1.2 Meg resistor with switch extends frequency range down to 108.9 MHz.

Correspondence regarding this review may be sent to Iden Rogers, P.O. Box 4693, Riverside, CA 92514. Please enclose an SASE if you wish to have a reply.

Business, Etc.

Chuck Gysi, Editor

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufacturers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to: Chuck Gysi, P.O. Box 216, Willow Grove, PA 19090.

A good amount of good copy came in the mail this month for this column. My thanks to those who have been contributing on a regular basis and to those who send in bits and pieces of information. If you have any information that you would like to share with our members, please mail it in. Beginning with the most-popular part of this column, we begin:

News Media/Film

NORTHEASTERN PENNSYLVANIA NEWS MEDIA

From Clint Chamberlin (PA-031):

153.170	WNEP-TV Ch. 16 reporters (Scranton)
154.540	WBRE-TV Ch. 28 reporters (Wilkes-Barre)
161.640	WILK Radio and air traffic advisories (Wilkes-Barre)
161.670	WBAX Radio (Wilkes-Barre)
161.700	WARM Radio (Scranton)
173.225	Scranton Times
173.275	Country Impressions (various local newspapers)
173.325	Bloomsburg Morning Press
450.1125	WBRE-TV Ch. 28 remote broadcast set-up (Wilkes-Barre)
450.3125	WNEP-TV Ch. 16 remote broadcast set-up Channel 1 (Scranton)
450.3875	WNEP-TV Ch. 16 remote broadcast set-up Channel 2 (Scranton)
452.975	Suburban Newspaper
453.000	Wilkes-Barre Times Leader circulation
455.250	WDAU-TV Ch. 22 and WGBI radio reporters (Scranton)

(Editor's note: Recently I heard WNEP-TV crews using their Channel 1 while in the Hazleton area. They made reference to using "Channel 3," however, I was unable to find it. I asked Clint and he wasn't sure, although he said it may be simplex operation on one of their repeater output frequencies on UHF.)

ST. LOUIS NEWS MEDIA

From St. Louis RCMA Chapter:

Newspapers--		
	St. Louis Post Dispatch	173.225
	St. Louis Globe Democrat	173.325
	Suburban Newspapers	173.325
Radio/Television		
	KSDK-TV	450.150/455.150, 450.850/455.850
	KSD Radio	450.1875, 154.570
	KTVI-TV	450.5875/455.5875, 450.6125/455.6125, 463.200/468.200
	KMOX-TV	450.550/455.550 Mini-Cam crews 461.800/466.800 Dispatch 450.750/455.700
	KMOX Radio	161.730, 161.700 (traffic copter
	KSLQ Radio	450.150 (also reported on 452.500 cab freq--can't verify)

Notes

News crews from the three major network stations, KMOX, KSDK and KTVI have been heard using Bell System mobile telephones.

161.730 and 161.760 are St. Louis EBS access stations. KMOX is the St. Louis EBS station.

KSD's frequency 450.1875 is the most active channel. The station recently switched to all-news format. Listening will hear frequent references to scanners and sometimes local frequencies are aired to mobiles which seem to have Bearcat programmable units.

KMOX Radio's traffic service has enlisted the services of Coca-Cola's radio-equipped fleet. Thus, traffic reports can be heard on their channels: 463.550 (KRK 618), 463.650 (KYY 391), and 463.675 (KBC 283).

From TONY LOVING (NJ-005): Cable Network News is using 452.975 in New York City.

From RICK PRELINGER (NY-???, ex-CA-SF-002): Here are some frequencies found on FCC microfiche for news-gathering organizations:

35.90	WXW 907	Associated Press (New York City)
151.715	KJB 463	American Broadcasting Co. (New York City)
151.745	KKK 697	CBS, Inc. (New York City)
151.805	KBJ 236	NBC (New York City)
151.955	KFT 926	American Broadcasting Co. (New York City)
461.525	KRB 976	New Yorker Magazine (New York City)
151.835	WYN 842	Ziff-Davis Publishing Co. (New York City--publishers of Popular Electronics and other mags)

Business

NEW YORK (WALL STREET) BUSINESS FREQUENCIES

From Rick Prelinger (NY-???, ex-CA-SF-002):

151.220	WZU 487	New York Stock Exchange
151.400	WZU 487	New York Stock Exchange
151.715	KAM 348	Merill Lynch
151.865	WYK 733	Dun & Bradstreet Inc.
151.895	KGB 416	Chemical Bank (also KYR 911 and KYR 912)
154.625	KME 991	American Stock Exchange (paging)
158.460	WRI 531	Fortunoff (paging)
	WYJ 493	New York Stock Exchange (paging)
159.420	WZU 487	New York Stock Exchange (a forestry freq?)
461.075	KSK 720	E.F. Hutton Inc.
464.050	KIJ 832	Citibank, N.A.
464.125	KSH 368	Chemical Bank
	WYK 897	Citibank, N.A.
464.225	KKJ 436	Citicorp
464.350	KKD 785	New York Stock Exchange
464.425	KRW 840	First National City Bank (Citibank)
464.475	KJX 487	Morgan Guaranty Trust
853.0125	KRF 775	American Express (also KXE 217)

Motor Carrier

AUTOMOBILE CLUB OF MISSOURI (St. Louis Area)

From Frank Roth (MO-014):

Frequencies:

150.905 base/mobile 452.550 base/mobile 461.775 repeater
150.965 base/mobile 452.600 base/mobile

X Codes:

X-1	Clear and understood
X-3	Completed call
X-4	Not a club member and/or cant find car
X-5	Car found, but no one with car
X-6	Service station ready for more calls
X-7	Driver of tow truck on break

X-9 Tow truck driver ready for another call
X-10 Dispatcher has another call
X-11 Stand by
X-12 Tow truck down for the day
X-14 Call canceled
X-20 Dispatcher holding calls

NEXT MONTH: Los Angeles transit codes!

Mobile Phone/RCC

Nothing new to report on the mobile phone/radio common carrier scene. Have any info? Send it in!

Utility

PART XI--LOS ANGELES CITY WATER AND POWER SYSTEM

Silver Frequency Operations

The silver frequency (47.96 MHz) is assigned to water operations in the San Fernando Valley. It is normally active during regular working hours, however, the Water Trouble Dispatcher at Ducommon may instruct certain units to shift to that frequency after normal working hours.

Mobile units with silver frequency capability may communicate with the following stations: "Radio" (Radio Telegraph Office, L.A.), "Water" (Water Trouble, Ducommon), "West Valley" (West Valley Water Trouble), "East Valley" (East Valley Water Trouble), "Van Norman" (Gatehouse, Van Norman Dam), and "GOB" (Water Operating, General Office Building).

Base station operators normally use the following transmitters when communicating on the silver frequency: Lookout Mountain (KME 488), Van Norman Dam (KTU 841), West Valley Water (KAS 714), East Valley Water (KMG 735), and Cascades (WXG 208).

Base station operators using transmitters other than Lookout Mountain must transmit the FCC-assigned call sign after each series of transmissions. The operator on duty at the Los Angeles Radio Telegraph Office is responsible for identifying the Lookout Mountain transmitter.

Mobile units operating on the silver frequency are not required to transmit the FCC-assigned call sign when clearing the frequency. They must, however, transmit their unit designator at least once during each series of transmissions.

Security

MANHATTAN HOTELS

From Rick Prelinger (NY-???, ex-CA-SF-002):

The following information came from the August 1980 FCC microfiche.

30.80	KLB 963	Hilton N.Y. Hotel
35.06	KXW 649	Barclay Hotel
151.685	KVZ 346	New York Hilton Hotel
	WRM 529	Waldorf-Astoria
151.745	WXH 542	Americana Hotel
	WYT 572	Loew's Drake Hotel
	WZB 233	Sheraton Center Hotel
151.775	WXH 542	Americana Hotel
	WZY 861	Hotel Taft
151.955	WRM 438	Waldorf-Astoria
152.480	KVE 346	Hilton New York Hotel (paging)
154.515	KIE ?66	St. Regis Hotel
	KIG 3?1	Carlton House
	KUJ 483	Hilton New York Hotel
	KUV 345	Sheraton Motor Inn
	KXU 753	New York Sheraton Inn

	KXW	654	The Lombardy
	KZM	637	Hotel Carlyle
	WXJ	825	Loew's Summit Hotel
154.570	KXT	533	St. Regis Hotel
158.460	WXB	634	Marriott's Essex House (paging)
	WZQ	414	Berkshire Hotel (paging)
461.250	KSC	403	Hotel St. Moritz
	KWW	582	Park Lane Hotel
462.825	WRM	859	Hotel Middletowne (paging)
462.875	WRK	321	Loew's Regency Hotel (paging)
464.000	WZB	633	Sheraton Center Hotel
465.000	KYZ	406	The Pierre (paging)

From CHUCK GYSI (PA-005): As of this writing (mid-December), two more casinos have opened in Atlantic City. As soon as we find out any information regarding frequencies, we will update the list that ran last month.

School

NEW YORK COLLEGES AND UNIVERSITIES

From Rick Prelinger (NY-???, ex-CA-SF-002):

The following information is from the August 1980 FCC microfiche.

35.06	KQF	311	Columbia University
35.90	KDY	664	New York University
151.895	KRZ	442	New York University
	KTW	282	CUNY/John Jay College of Criminal Justice
154.515	KLL	636	Manhattan College (Bronx)
	KRG	57?	New York University
	KXG	773	Fordham University
154.540	KFX	761	Yeshiva University
	KYK	890	Brooklyn College (also KYK 891)
158.460	WRI	860	Rockefeller University (paging)
461.200	KYN	723	Bronx Community College
461.350	KVC	689	Bronx Community College
462.825	KSF	997	Columbia University (paging)
464.000	KUX	693	Brooklyn College (also KUX 694)
464.425	KSM	519	Long Island University (Brooklyn)
464.475	KYF	596	Pace University
464.525	KTK	369	Hunter College of CUNY
	KVE	265	New York University
464.775	KTI	366	Manhattan Community College
464.925	KXG	475	Richmond College (Staten Island--also KYI 735)

Freak Freqs

WALT DISNEY WORLD COMMUNICATIONS (Orlando, Fla.)

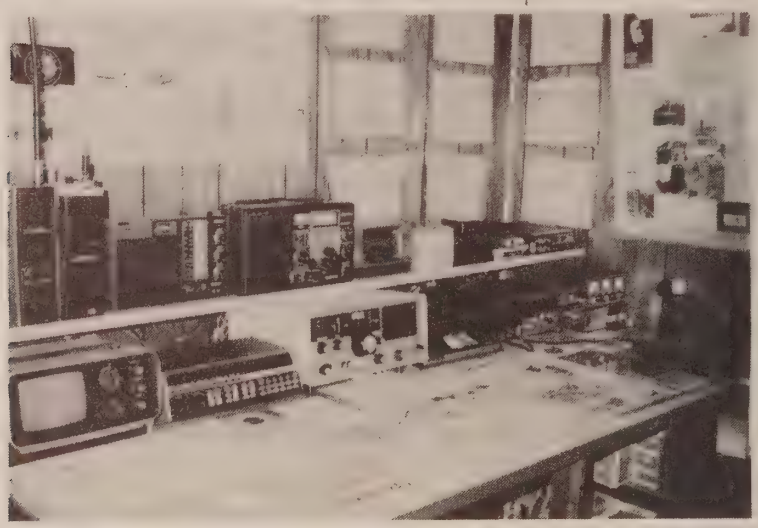
From RCMA Miami Group:

151.655	Construction
151.895	20,000-Leagues submarines
154.430	Fire/mutual aid with Orange County, Orlando
155.370	Police/mutual aid
157.740	Paging
453.825	Fire/mutual aid
453.875	Fire/Operations 1
453.925	Fire/Operations 2
461.600	Resorts
462.550	Operations 1/administrative, paging
462.575	Operations 2/monorails
462.625	Operations 3/land transportation
462.650	Maintenance 1/landscaping
462.675	Maintenance 2/theme park
463.975	Entertainment
464.125	Security 2/administration

BUSINESS. ETC CONTINUED
464.400 Security 1/patrol
464.625 Utilities
464.800 Taxi
In addition, the two following amateur repeaters are licensed at Disney World: 147.90 in/147.30 out, and 448.40 in/443.40 out. Call is WR4AMG. Any additions to the above list would be appreciated.

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to: Mike Redman, P.O. Box 1177, St. Charles, MO 63301.



Above is the radio facility of DENIS WILSON (NY-089). Denis is affiliated with a number of radio clubs, and is a shortwave as well as monitoring hobbyist. On the top shelf, from left to right: Two Realistic handheld transceivers, Panasonic RF-940 Tunable, Panasonic RF-2200 8-band receiver, Electronic indoor/outdoor thermometer, wind velocity meter, Realistic cassette recorder. Desk top, from left to right: Sears 5" television, Bearcat 300, Yaesu FRG-7, Bearcat 210, Realistic TRC-457 AM/SSB CB Transceiver, with receiver preamplifier, and output monitoring meters.
Now we need your photo for an upcoming spot right here in the Photo Section, so send in that black and white shot, preferably in 5 x 7 size, and it just might wind up right here. See you next month!

Miscellany

P.O. Box 216
Willow Grove, PA 19090

The following two pages are inserted to get out page numbering to be a multiple of four. Rather than have two blank pages and answer all the letters saying my newsletter had blank pages, the pasteup crew Bryan CAOR097 and John CAOR078 contributes the following.

Bearcat 101 switch settings for monitoring the two meter band. This is a continuation of material we have substituted previously.

145.6	1	1	1	1	0	1	0	0	0	1	1	0	0	0	1
145.605	1	1	1	1	0	1	0	0	0	1	0	1	1	0	1
145.61	1	1	1	1	0	1	0	0	0	1	0	1	0	0	1
145.615	1	1	1	1	0	1	0	0	0	1	0	0	1	0	1
145.62	1	1	1	1	0	1	0	0	0	1	0	0	0	0	1
145.625	1	1	1	1	0	1	0	0	0	0	1	1	1	0	1
145.63	1	1	1	1	0	1	0	0	0	0	1	1	0	0	1
145.635	1	1	1	1	0	1	0	0	0	0	1	0	1	0	1
145.64	1	1	1	1	0	1	0	0	0	0	1	0	0	0	1
145.645	1	1	1	1	0	1	0	0	0	0	0	1	1	0	1
145.65	1	1	1	1	0	1	0	0	0	0	0	1	0	0	1
145.655	1	1	1	1	0	1	0	0	0	0	0	0	1	0	1
145.66	1	1	1	1	0	1	0	0	0	0	0	0	0	0	1
145.665	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1
145.67	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1
145.675	1	1	1	1	0	0	1	1	1	1	1	0	1	0	1
145.68	1	1	1	1	0	0	1	1	1	1	1	0	0	0	1
145.685	1	1	1	1	0	0	1	1	1	1	0	1	1	0	1
145.69	1	1	1	1	0	0	1	1	1	1	0	1	0	0	1
145.695	1	1	1	1	0	0	1	1	1	1	0	0	1	0	1
145.7	1	1	1	1	0	0	1	1	1	1	0	0	0	0	1
145.705	1	1	1	1	0	0	1	1	1	0	1	1	1	0	1
145.71	1	1	1	1	0	0	1	1	1	0	1	1	0	0	1
145.715	1	1	1	1	0	0	1	1	1	0	1	0	1	0	1
145.72	1	1	1	1	0	0	1	1	1	0	1	0	0	0	1
145.725	1	1	1	1	0	0	1	1	1	0	0	1	1	0	1
145.73	1	1	1	1	0	0	1	1	1	0	0	1	0	0	1
145.735	1	1	1	1	0	0	1	1	1	0	0	0	1	0	1
145.74	1	1	1	1	0	0	1	1	1	0	0	0	0	0	1
145.745	1	1	1	1	0	0	1	1	0	1	1	1	1	0	1
145.75	1	1	1	1	0	0	1	1	0	1	1	1	0	0	1
145.755	1	1	1	1	0	0	1	1	0	1	1	0	1	0	1
145.76	1	1	1	1	0	0	1	1	0	1	1	0	0	0	1
145.765	1	1	1	1	0	0	1	1	0	1	0	1	1	0	1
145.77	1	1	1	1	0	0	1	1	0	1	0	1	0	0	1
145.775	1	1	1	1	0	0	1	1	0	1	0	0	1	0	1
145.78	1	1	1	1	0	0	1	1	0	1	0	0	0	0	1
145.785	1	1	1	1	0	0	1	1	0	0	1	1	1	0	1
145.79	1	1	1	1	0	0	1	1	0	0	1	1	0	0	1
145.795	1	1	1	1	0	0	1	1	0	0	1	0	1	0	1

145.8	1	1	1	1	0	0	1	1	0	0	1	0	0	0	1
145.805	1	1	1	1	0	0	1	1	0	0	0	1	1	0	1
145.81	1	1	1	1	0	0	1	1	0	0	0	1	0	0	1
145.815	1	1	1	1	0	0	1	1	0	0	0	0	1	0	1
145.82	1	1	1	1	0	0	1	1	0	0	0	0	0	0	1
145.825	1	1	1	1	0	0	1	0	1	1	1	1	1	0	1
145.83	1	1	1	1	0	0	1	0	1	1	1	1	0	0	1
145.835	1	1	1	1	0	0	1	0	1	1	1	1	0	1	1
145.84	1	1	1	1	0	0	1	0	1	1	1	0	0	0	1
145.845	1	1	1	1	0	0	1	0	1	1	0	1	1	0	1
145.85	1	1	1	1	0	0	1	0	1	1	0	1	0	0	1
145.855	1	1	1	1	0	0	1	0	1	1	0	0	1	0	1
145.86	1	1	1	1	0	0	1	0	1	1	0	0	0	0	1
145.865	1	1	1	1	0	0	1	0	1	0	1	1	1	0	1
145.87	1	1	1	1	0	0	1	0	1	0	1	1	0	0	1
145.875	1	1	1	1	0	0	1	0	1	0	1	0	1	0	1
145.88	1	1	1	1	0	0	1	0	1	0	1	0	0	0	1
145.885	1	1	1	1	0	0	1	0	1	0	0	1	1	0	1
145.89	1	1	1	1	0	0	1	0	1	0	0	1	0	0	1
145.895	1	1	1	1	0	0	1	0	1	0	0	0	1	0	1
145.9	1	1	1	1	0	0	1	0	1	0	0	0	0	0	1
145.905	1	1	1	1	0	0	1	0	0	1	1	1	1	0	1
145.91	1	1	1	1	0	0	1	0	0	1	1	1	0	0	1
145.915	1	1	1	1	0	0	1	0	0	1	1	0	1	0	1
145.92	1	1	1	1	0	0	1	0	0	1	1	0	0	0	1
145.925	1	1	1	1	0	0	1	0	0	1	0	1	1	0	1
145.93	1	1	1	1	0	0	1	0	0	1	0	1	0	0	1
145.935	1	1	1	1	0	0	1	0	0	1	0	0	1	0	1
145.94	1	1	1	1	0	0	1	0	0	1	0	0	0	0	1
145.945	1	1	1	1	0	0	1	0	0	0	1	1	1	0	1
145.95	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1
145.955	1	1	1	1	0	0	1	0	0	0	1	0	1	0	1
145.96	1	1	1	1	0	0	1	0	0	0	1	0	0	0	1
145.965	1	1	1	1	0	0	1	0	0	0	0	1	1	0	1
145.97	1	1	1	1	0	0	1	0	0	0	0	1	0	0	1
145.975	1	1	1	1	0	0	1	0	0	0	0	0	1	0	1
145.98	1	1	1	1	0	0	1	0	0	0	0	0	0	0	1
145.985	1	1	1	1	0	0	0	1	1	1	1	1	1	0	1
145.99	1	1	1	1	0	0	0	1	1	1	1	1	0	0	1
145.995	1	1	1	1	0	0	0	1	1	1	1	0	1	0	1
146	1	1	1	1	0	0	0	1	1	1	1	0	0	0	1

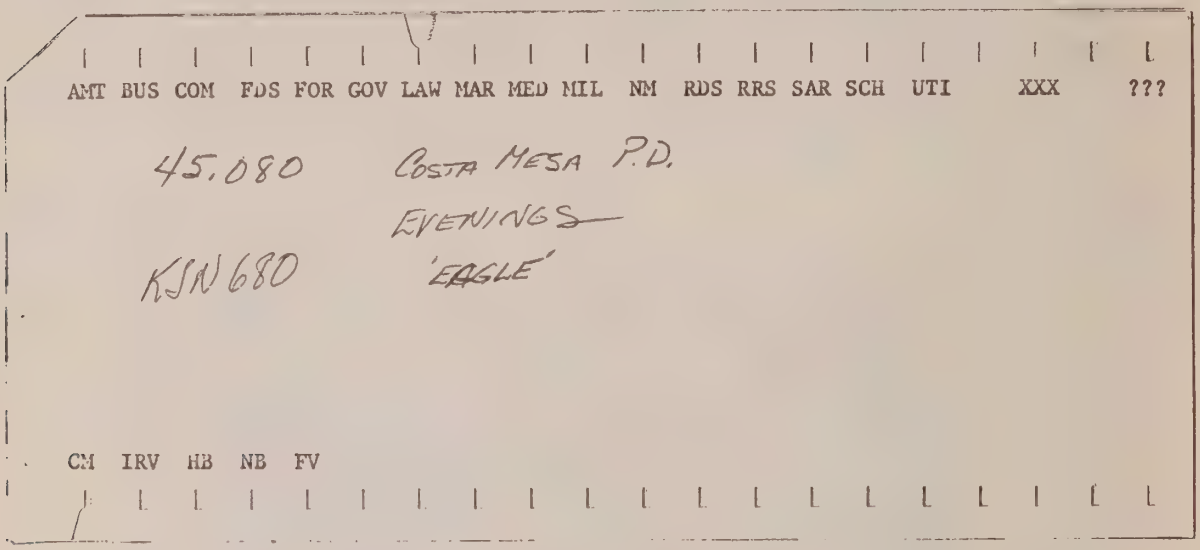
A noncomputerized method of sorting frequencies that allows for quick retrival in a random order.

This method is a downgraded version of the old Mcbee Keysort routine that was quite popular in the days before computers. If you have under 1000 frequencies this method will probably beat the average home computer program in retrival and reording.

The method involves the technique of throwing away everything you don't want, and what remains is what you were looking for.

Start with standard IBM cards. Punch the letter "I" about every 4th column on the card. (this will give holes on the top and bottom rows of the card.)

Assign each hole a value. On the example below the values in the top row are the catagories that Bryan CAOR097 uses for his computer sorts. When information is obtained about a frequency that you have monitored, write the data on the card and notch out the proper holes.



The above example is notched for Costa Mesa Law Enforcement. This card could be selected by use of the city hole or the orginzation hole. It would take two passes to get the card.

Pass 1. Run a stiff wire through all the cards at the LAW hole. Lift up and set the cards that hang on the wire aside. They are not LAW frequencies.

Pass 2. With the cards you did not pick up on pass 1, run the wire through the CM hole. What you can't pick up is going to deal with CD LAW.

This method will allow you to select cards from anywhere in the deck. Provides a lot of room to keep notes on each frequency, and is cheaper than a computer.

If you always select from the top holes first, the bottom holes do not have to be the same. For LAW you may want cities on the bottom, but for railroads you could code company names. Also blank holes leave room for expansion.

ADVERTISING GUIDELINES

1. Ads for products or services must relate to the hobby of monitoring two way radio communication such as receivers, crystals, antenna systems (antennas, coax, coax fittings coax switches, supporting structures, rotators, pre-amplifiers, etc.), carrier operated relays frequency counters and RF signal generators (both must be capable of operating at least to 512 MHz), converters, external synthesized oscillators, frequency references, books, appropriate tape recorders, appropriate computer hardware/software, CRT and hardcopy readouts for ASCII, etc.

2. Ads that will not be accepted include frequency lists that reveal "sensitive" or classified frequencies, unscramblers and any other products that are not in the best interest of the club or hobby.

3. Ads for Scanners/Hardware of value greater than $100.00 should not include prices. Readers must contact the advertiser for prices.

4. Auxilary hardware items (coax, antennas, crystals, power supplies, etc.), books, frequency lists and other printed matter can include prices.

5. The Board of Directors shall reserve the right to reject any advertising copy if it so chooses.

6. Whenever possible, products or services sould be described in an informative, educational manner.

7. The amount of advertising in the Newsletter shall never exceed 12.5%, not counting the cover in the page count.

8. Space for advertising shall be sold only by the ¼ page, ½ page and full page.

9. Advertising must fit "confortably" within the confines of a rectangular box. The box size for a ¼ page ad is 7 inches wide by 2-3/4 inches high. The box size for a ½ page ad is 7 inches wide by 5½ inches high. The box size for a full page ad is 7 inches wide by 11¼ inches high.

10. Advertisers must supply camera ready copy in dimensions listed above.

11. Location of advertising within the Newsletter: No ads shall apear on the cover, inside or out, or on any of the first 10 pages. The location of advertisements within these limits shall be at the discretion of the Newsletter editor.

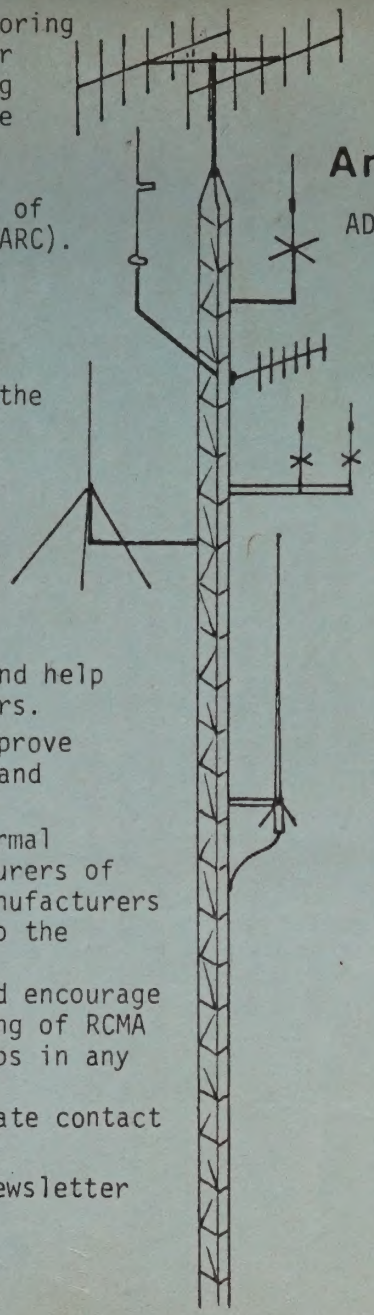
12. Advertising rates: $36 for a full page ad, $20 for a ½ page ad and $12 for a ¼ page ad.

13. Payment for advertising: Checks or money orders must be made payable to "RCMA" and accompany the advertising copy.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications above 30 MHz as a hobby. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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